

PRESS RELEASE

Civil society urges POSCO to halt extension of coal-based steelmaking

POSCO Holdings invests 392 million USD in relining two mega blast furnaces

October 06, 2023 (SEOUL) – A group of 24 civil society organizations from around the world delivered a letter to POSCO Holdings on Thursday, urging it to stop prolonging the lifespan of their coal-fired blast furnaces and develop a plan to phase out the remaining ones. POSCO Holdings is South Korea's largest steel producer and top corporate emitter.

Currently, coal-powered blast furnaces make up around 70% of global and South Korean steel production. These furnaces are the primary cause of the steel industry's high emission intensity. Steel production accounts for 16.7% of South Korea's total greenhouse gas (GHG) emissions.

POSCO plans to reline two blast furnaces at its Pohang and Gwangyang steel plants, which are the world's two largest integrated steel mills. Relining the blast furnaces extends the use of coal in steel production and adds approximately 15 more years to the facilities' operational lifespan.

[Research](#) indicates that Pohang and Gwangyang steel plants' coal-based steelmaking leads to air pollution, causing health issues estimated to cost 3.2 trillion KRW (USD 2.95 billion) in 2021.

POSCO's relining also goes against its climate targets of reducing emissions by 10% by 2030 and by 50% by 2050. The letter calls for POSCO to achieve its climate goals and release a plan to replace the current blast furnace facilities with greener production methods, such as scrap-based electric arc furnace (EAF) and hydrogen direct reduced iron (H₂-DRI).

Quotes (in alphabetical order by last name, local/Korean organizations first):

Jeong Chim Gwi, Director at the Korean Federation for Environmental Movement Pohang: "Even if the relining of Pohang Blast Furnace No. 4 is operationally necessary, it is problematic that there has not been any communication with the local community. In the process of moving towards carbon neutrality, POSCO's pollutant emissions and carbon emission reduction plans must be disclosed and communicated with local stakeholders."

Min Kim, Co-representative at BigWave: “POSCO’s 2050 carbon neutrality roadmap is only a half-hearted plan, with no intention of reducing GHG emissions for the company’s overseas operations. POSCO needs to show leadership by increasing its 2030 GHG reduction target by at least 20% from the current 10% to align with the Paris Agreement’s 1.5°C target.”

Heather Lee, Steel Lead at Solutions for Our Climate: “Extending the use of coal in steelmaking will not only impact the South Korean steel industry and its level of emissions but have far-reaching consequences for the national economy. Steel decarbonization is closely tied to the global competitiveness of export-oriented industries in Korea, such as automotive, electronics, and shipbuilding.”

Caroline Ashley, Director at SteelWatch: “By relining Blast Furnace No. 4, POSCO is locking in huge carbon emissions for another two decades. That is a bad decision for the planet: directly undermining chances of stabilizing the climate crisis. It is a bad decision for the company: heading in the wrong direction away a decarbonized future-fit competitive steel producer.”

Matthew Groch, Senior Director of the Decarbonization Campaign at Mighty Earth: “It’s time for POSCO to end the use of dirty coal-based steelmaking technologies. If they truly have global ambitions, they need to know that consumers in North America don’t want to buy products, including electric vehicles, made using coal.”

Julia Hovenier, Banks & Steel Campaigner at BankTrack: “At this stage of the climate crisis, banks should not be supporting steelmakers who are investing in future coal use. If POSCO’s financiers are genuinely committed to the right to clean air and fighting climate change, they must engage with POSCO to stop the reline or cut ties if it continues with its plans.”

Yong Kwon, Senior Policy Advisor at Sierra Club: “Windows of opportunity for the steel industry’s transition to near-zero emissions by 2050—which is less costly to industry and vastly beneficial to public health—emerge when blast furnaces reach the end of their campaign. We urge POSCO to retire coal-based steelmaking and invest in greener technologies at this critical moment.”

ENDS.

Solutions for Our Climate (SFOC) is an independent nonprofit organization that works to accelerate global greenhouse gas emissions reduction and energy transition. SFOC leverages research, litigation, community organizing, and strategic communications to deliver practical climate solutions and build movements for change.

For media inquiries, please reach out to Eunji Kim, Communications Officer, at eunji.kim@forourclimate.org.

5 October 2023

POSCO Holdings Inc.
Choi Jeong-woo
Chief Executive Officer
POSCO Center
440, Teheran-ro, Gangnam-gu,
Seoul, Republic of Korea

Dear Mr. Choi,

Typhoon Hinnamnor, which severely hit Korea last year, shut down the entire process of the POSCO Pohang steelworks for the first time in 50 years. The aftermath of the Pohang steelworks being flooded for about four months resulted in a consolidated operating loss of KRW 1.3 trillion (approx. 986.34 million USD) in 2022. This is a harbinger of climate disasters to come, including heavier rains and stronger typhoons.

In Korea, the world's sixth-largest crude steel producer and fourth-largest steel exporter, the steel industry is a highly carbon-intensive industry, largely due to the dominance of coal-based blast furnace production facilities, with steel production accounting for about 16.7% of the country's total greenhouse gas emissions and 30% of total industrial emissions as of 2019. In addition, sulfur oxides (SOx), nitrogen oxides (NOx), and ultra-fine particulate matter (PM2.5) generated by BF-BOFs are worsening air pollution levels in areas near steel mills, with pollution levels particularly high near POSCO Gwangyang and POSCO Pohang steelworks. This shows POSCO's enormous influence as well as the company's social responsibility to contribute to the carbon neutrality goal of the Republic of Korea.

As representatives of Korean and international civil society groups advocating towards greater environmental and social responsibility, we are deeply concerned by POSCO's blast furnace relining plans, which are contrary to its 2050 carbon neutrality roadmap. We, therefore, call for the development of an alternative decarbonization plan for the Pohang Blast Furnace No. 4 and the withdrawal of the upcoming Gwangyang Blast Furnace No. 2 relining, replacing it with new, low-carbon facilities, while disclosing a clear emission reduction plan.

According to the POSCO Holdings' Q1 '23 report, the 3rd relining project for the Pohang Blast Furnace No. 4 (contracted in September '22 and Started in February '23) received a budget allocation of 299 billion won (approx. 226.77 million USD), with 12.683 billion won

(approx. 9.62 million USD) having been spent as of June 30, '23. The second relining of Gwangyang Blast Furnace No. 2 (which was announced in March '20 and, as of August '23 remained unconfirmed in terms of project start and end dates), was allocated a budget of KRW 220 billion (approx. 166.86 million USD).

Based on POSCO's average carbon emissions of 78.8 million tons in '17-'19, a 10% reduction by 2030, the interim goal towards achieving carbon neutrality by 2050, requires a reduction of 7.88 million tons of carbon emissions. In addition, considering the carbon emissions of the 2.5 million-ton ultra-large electric arc furnace scheduled to be operated in POSCO Gwangyang steelworks from 2026, the amount of carbon emissions should be reduced by 2030 is 9.81 million tons, which cannot be achieved without replacing the currently operating blast furnace facilities with low-carbon facilities.²

Analyzing the unit of carbon emissions per ton of crude steel, which is the annual carbon emissions divided by the crude steel production for the year, POSCO's carbon emissions per unit do not show a significant reduction in the last six years. Nevertheless, POSCO is requesting 800 billion won (approx. 606.75 million USD) of R&D funding from the government to develop decarbonization technologies and hydrogen reduction steel technology. The fact that the total budget of 519 billion won (approx. 393.63 million USD) is being used to reline existing blast furnace facilities indicates a concerning lack of corporate will to transition to low-carbon steel production, and short-sighted management decisions rather than sustainable investments that can increase corporate long-term competitiveness. It raises strong doubts about the company's sincerity toward carbon neutrality.

We, as signatories to this letter advocating toward greater environmental and social responsibility, call on POSCO to;

- Disclose a carbon emission reduction plan for Pohang Blast Furnace No. 4, which is currently undergoing relining.
- Disclose the preliminary feasibility study and environmental impact assessment report, including the necessity of the Pohang Blast Furnace No. 4 relining.
- Cancel the planned relining of the Gwangyang Blast Furnace No. 2 to replace it with new, low-carbon facilities, while disclosing clear emission reduction plan.
- Disclose the phase-out plan for all blast furnaces and conversion plan to the hydrogen reduction process and scrap-based steel-making by electric arc furnace (EAF) in accordance with POSCO's carbon neutrality roadmap (10% reduction by 2030, 50% reduction by 2040, and net-zero by 2050).

If POSCO proceeds with the blast furnace relining, the company's 2050 carbon neutrality commitments, including the fast-approaching 2030 interim targets, will be threatened and the government's R&D support aimed at developing environmentally friendly technologies will not be justified. Furthermore, this scale of investment into the extension of coal-based blast furnace production facilities severely threatens POSCO's reputation, amongst its customers, investors, and the general public, as a proactive industry leader in decarbonization initiatives.

The steel industry, which fueled Korea's economic growth during the recent decades, continues to be one of the most important national industries, providing essential materials for both domestic manufacturing and export. In the upcoming low-carbon economic system, which we are already seeing through the introduction of initiatives such as the EU Carbon Border Adjustment Mechanism (CBAM) and, the ongoing industry-led development of the green steel market, the decarbonization of the steel industry will determine both the country's industrial competitiveness and will be a key factor in protecting the health of residents living near steel mills.

Given POSCO's prominent role, both as the country's number one steel producer covering around half of domestic crude steel production and key overall contributor to national economy and emissions profiles, POSCO's proactive innovation and leadership are essential to achieving carbon neutrality in Korea. Therefore, we, the civil society, support the responsible implementation of POSCO's 2050 carbon neutrality roadmap and urge you to demonstrate that responsibility through a sincere response to the requests mentioned in this letter.

- Response closing date: October 20, 2023
- Contact:
 - Solutions for Our Climate (SFOC), 505 5th Fl., HEYGROUND, 5 Ttukseom-ro 1na-gil, Sungdong-gu, Seoul, Republic of Korea (04779)
 - Heather Lee, Steel Lead: heather.lee@forourclimate.org

Yours sincerely,

Signees (in alphabetical order, local/Korean organizations first):

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기후솔루션 Solutions for Our Climate (SFOC)

당진 환경운동연합 Korean Federation for Environmental Movement (KFEM) Dangjin

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Action Speaks Louder

BankTrack

Climate Catalyst

Coal Action Network (UK)

E+ Energy Transition Institute

Friends of the Earth Japan

Greenpeace East Asia

Industrious Labs

International Institute for Law and the Environment (IIDMA)

Market Forces

Mighty Earth

NGO Shipbreaking Platform

Public Citizen

Reclaim Finance

Sierra Club

SteelWatch

The Sunrise Project

Transition Asia

Zero Carbon Hydrogen Australia
