BOND SPOTLIGHT

Korea Southern Power plans potential Climate Transition Bond

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SUMMARY

- KOSOPW may issue USD 3Y or 5Y Climate Transition Bond, following investor meetings and its Green and Transition finance framework update.
- The framework links eligible CCGT investment to the replacement of around half of its current coal fleet.
- The coal-replacement pathway is clearly defined, but KOSOPW provides less visibility on the transition beyond LNG.
- Korea's forthcoming 12th Basic Plan will add detail on coal phase-out, renewables and the future power mix through 2040.

Korea Southern Power (ticker KOSOPW), one of six generation companies wholly owned by Korea Electric Power Corporation (ticker KORELE), is holding investor meetings in Asia from 2 September 2026. A USD-denominated Reg S Climate Transition Bond with a 3-year or 5-year tenor may follow, subject to market conditions.[1]

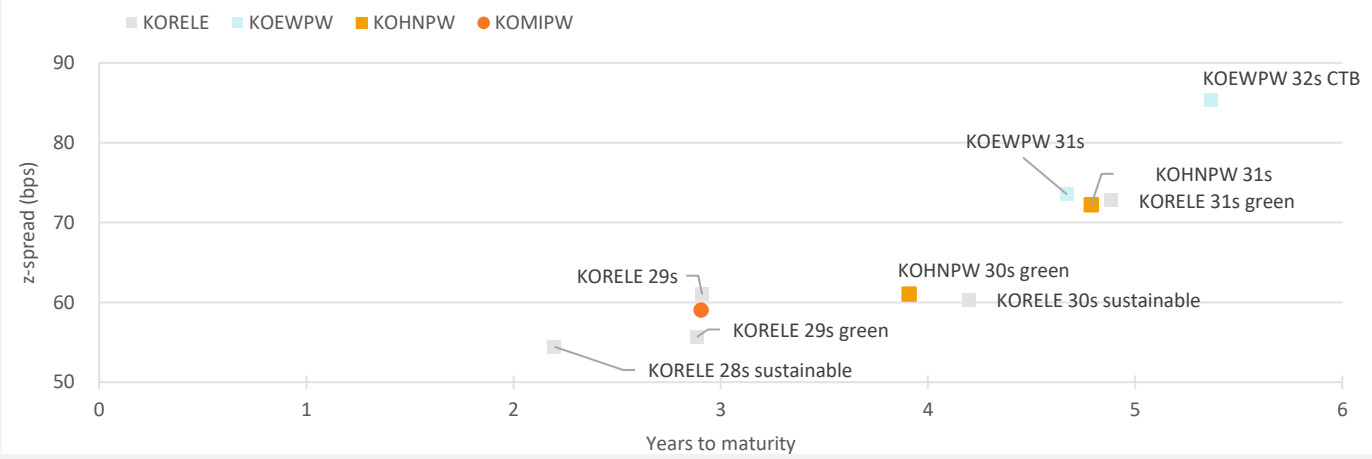
The potential transaction follows Climate Transition Bonds transactions from Korea East-West Power (ticker KOEWPW) and Korea Midland Power (ticker KOMIPO) and also green bond issuance from parent company, KORELE in July.[2,3,4]

KOSOPW's August 2026 Green and Climate Transition Finance Framework expands its labelled financing scope to include Climate Transition Bonds alongside green bonds and loans.[5]

The framework identifies four CCGT (Combined-Cycle Gas Turbine) projects totalling 3,024MW which directly replace 3,000MW of Hadong coal capacity between 2027 and 2031. The coal-to-gas leg is therefore relatively well defined at asset level. The pathway thereafter is less specific.

KOSOPW targets 100% low-emissions fuel firing by 2050 but does not disclose interim fuel-conversion milestones or a retirement date for the replacement CCGTs.

Figure 1. Selected USD bond comparables for KOSOPW in the Korean utility sector. Source: Bloomberg Finance L.P., accessed 01 Sep 2026.



[1] Details from Bloomberg.
[2] "Korea East-West Power: new Climate Transition Bond", AFII, 6 Jul 2026.
[3] "KOMIPW transition framework maps coal-to-hydrogen pathway", AFII, 21 Jul 2026.
[4] "South Korea deepens green bond push: KORELE and EIBKOR", AFII, 13 Jul 2026.
[5] "Green and Transition Finance Framework", Korea Southern Power, 27 Aug 2026.

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Pricing

KOSOPW previously issued a USD450mn five-year green bond in January 2021, which matured in January 2026. Its 2025 impact report shows the proceeds were fully allocated, mainly to fuel cell, wind, solar and small hydro projects.[6] The new potential Climate Transition Bond therefore shifts KOSOPW's labelled USD financing towards CCGT investment linked to coal replacement.

The potential transaction also comes ahead of KOSOPW's USD300mn 5.375% conventional bond maturity on 21 September 2026. Recent KOEWPW and KOMIPO Climate Transition Bonds provide useful labelled references for the proposed 3Y or 5Y tranches respectively, given their broadly similar high-grade credit profiles.

Given the similar credit profiles and recent labelled issuance from KOEWPW and KOMIPO, a new KOSOPW bond could be expected to price close to existing KORELE subsidiary comparables, as shown in Figure 1, with final pricing, orderbook quality and secondary spread performance potentially offering insight into how investors price the Climate Transition Bond label and KOSOPW's transition profile.

Transition projects address a material part of KOSOPW's coal exposure

KOSOPW operated 12.1GW of domestic generation capacity at end-2025, comprising 49.8% coal, 46.7% gas and 3.5% renewables. The identified transition projects replace 3.0GW of Hadong coal between 2027 and 2031 equivalent to around half of KOSOPW's current coal-fired capacity, or around 25% of its total domestic generation capacity.[7] A further 1.0GW of Hadong coal is scheduled to retire in 2038-39, while the 2,044MW Samcheok plant remains outside the identified transition-finance programme.

The K-Taxonomy requires eligible replacement CCGTs to have emissions intensity of no more than 340gCO_2e/kWh and a plan to average 250gCO_2e/kWh over their design life.[8] The framework does not disclose expected emissions intensity for the identified projects. Relative to the IEA estimate of around 795gCO_2/kWh for a 43%-efficient bituminous coal plant, the K-Taxonomy thresholds correspond to generation-stage emissions reductions of around 57% and 69%, respectively.[9] These therefore represent eligibility thresholds rather than disclosed project-level emissions estimates. Actual lifecycle emissions reductions would depend on project-specific performance as well as upstream LNG emissions, including methane leakage.[10]

Coal retirement may nevertheless need to accelerate. Korea joined the Powering Past Coal Alliance at COP30, committing to end new unabated coal generation and phase out existing unabated coal. Of the country's 61 coal units, 40 are currently confirmed for retirement by 2040, while retirement dates for the remaining 21 have material butermined.[11] Separately, a high-ambition pathway modelled by Solutions for Our Climate and the University of Maryland achieves a 61% economy-wide reduction by 2035 on the assumption that coal

[6] "KOSOPW Green Bond Impact Report 2025", Korea Southern Power, 24 Aug 2026.
[7] "Korea Southern Power Co., Ltd. Second-Party Opinion", Sustainable Fitch, 24 Aug 2026.
[8] "K-Taxonomy Guidelines", Ministry of Climate, Energy and Environment, 31 Dec 2025.
[9] "Investments in coal projects and emissions abatement", IEA, accessed 1 Sep 2026.
[10] "Assessing emissions from LNG supply and abatement options", IEA, 19 Jun 2025.
[11] "Republic of Korea and Bahrain join the Powering Past Coal Alliance at COP30", Powering Past Coal Alliance, 17 Nov 2025.

generation is fully phased out by then.[12] KOSOPW's planned retirement of around half of its current coal fleet by 2031 is therefore material, but leaves further coal capacity to be addressed.

KOSOPW has separately raised its 2035 GHG reduction target to 72% below 2018 levels. This numerically falls within Korea's 68.8%-75.3% power-sector reduction range, although the corporate and national targets are not directly comparable.[13,14] KOSOPW does not quantify how much of this reduction is expected to come from the identified CCGT projects. Further disclosure on their expected contribution to the 72% target, together with the timing of remaining coal retirements and hydrogen deployment, would help assess whether the transition is progressing quickly enough beyond the initial coal-to-gas switch.

Similar frameworks, different transition pathways

KOSOPW follows the broad structure established by KOMIPO and KOEWPW. All three frameworks reference the 2025 ICMA Green Bond Principles, Climate Transition Bond Guidelines (CTBG) and Climate Transition Finance Handbook (CTFH), align eligible transition CCGTs with the K-Taxonomy, and restrict them to coal-replacement projects.[15, 16,17] CTBG alignment adds safeguards around substantial and quantifiable emissions reductions and carbon lock-in, including for fossil-fuel infrastructure.[18] The more important differences are how much existing coal capacity is addressed and how clearly each issuer defines the pathway beyond LNG.

KOSOPW's identified projects cover around 50% of current coal capacity, compared with around 16% for KOMIPO's first two projects and around 37% for KOEWPW by 2035, rising to around 53% including 2036 projects, as shown in Table 1. KOMIPO sets the earliest hydrogen milestones, at 20% by 2028 and 100% by 2040. KOEWPW targets around 50% by 2035 and 100% by 2050. KOSOPW targets 100% low-emissions fuel by 2050 but provides no equivalent interim milestone or CCGT end date.

Table 1. Comparison of KOSOPW, KOMIPO and KOEWPW transition pathways. Source. KOSOPW, KOMIPO, KOEWPW.

	KOSOPW	KOMIPO	KOEWPW
Current portfolio			
Installed capacity	12.14GW	10.78GW	10.28GW
Current capacity mix	Coal 49.8%; LNG 46.7%; renewables 3.5%	Coal ~57%; LNG ~40%; renewables ~3%	Coal 62.6%; LNG 34.5%; renewables 2.9%
Current coal capacity	~6.0GW	6.11GW	6.44GW
Coal transition programme			
Coal covered by identified transition projects	3.0GW	~1.0GW	2.4GW by 2035, plus 1.0GW in 2036
Share of current coal addressed	~50%	~16%	~37% by 2035; ~53% incl. 2036
Coal remaining outside identified programme	~3.0GW	~5.1GW	~3.0GW

[12] "Analyzing Korea's 2035 NDC GHG Emissions Reduction Pathway through an Integrated Assessment Model", SFOC / University of Maryland, 23 Apr 2025.
[13] "KOSOPW raises 2035 GHG reduction target to 72%", Yonhap News Agency, 13 Apr 2026.
[14] "2035 Nationally Determined Contribution", Office for Government Policy Coordination, accessed 1 Sep 2026.
[15] "Green and Transition Finance Framework", Korea Southern Power, 27 Aug 2026.
[16] "2026 Green and Climate Transition Finance Framework", Korea East-West Power, Jun 2026.
[17] "KOMIPO 2026 Green and Climate Transition Finance Framework", Korea Midland Power, Jul 2026.
[18] "Climate Transition Bond Guidelines FAQs", ICMA, Jun 2026.

	KOSOPW	KOMIPO	KOEWPW
CCGT / hydrogen pathway			
Interim fuel milestone	Not specified	20% hydrogen by 2028	~50% hydrogen around 2035
Full conversion target	100% low-emissions fuel by 2050	100% hydrogen by 2040	100% hydrogen by 2050
CCGT end-date	Not specified	Boryeong 2057; Haman 2058	Project-specific dates into the 2060s
GHG targets			
Current corporate GHG target	72% reduction by 2035 vs 2018	70% reduction by 2040 vs 2017	76% reduction by 2040
Comparison with Korea 2035 power-sector NDC	Within the 68.8-75.3% range on a headline basis	Not directly comparable	Not directly comparable

Hydrogen conversion remains an execution risk

The longer-term transition case depends on whether hydrogen or other low-emissions fuels can be deployed at the scale and timing assumed, including sufficient fuel supply, infrastructure and commercially viable turbine technology.[19] KOMIPO and KOEWPW provide interim hydrogen milestones, while KOSOPW does not, but all three rely on conversion targets that extend well beyond the maturity of the bonds. This leaves investors dependent on continued disclosure to assess whether coal replacement ultimately leads to lower reliance on unabated LNG.

Korea policy is accelerating the power-sector transition

Korea's power-sector transition is being driven by both decarbonisation and energy security. The government is seeking to reduce dependence on imported fossil fuels while meeting rising electricity demand from semiconductors, AI data centres and electrification. Korea's 2035 NDC targets a 53-61% reduction in net GHG emissions from 2018, (including a 68.8-75.3% reduction in power-sector emissions over the same period), while the First Renewable Energy Basic Plan targets 100GW of renewable capacity by 2030 and more than 30% renewable generation by 2035.[20,21] Policy reforms are also addressing renewable procurement and grid access, while restructuring of the state-owned generation companies remains under review.[22]

The forthcoming 12th Basic Plan for Electricity Supply and Demand, which the government plans to prepare by October 2026, will add further detail to Korea's power-sector transition pathway, including renewable expansion, coal phase-out and the future power mix through 2040.[23] This will give investors more detail against which to assess whether the coal-replacement and post-LNG pathways set out by KOSOPW, KOMIPO and KOEWPW remain consistent with Korea's evolving power-sector transition.

[19] "Global Hydrogen Review 2026", IEA, 18 Jun 2026.
[20] "2035 NDC and Fourth Emissions Trading Allocation Plan Finalized at Cabinet Meeting", Ministry of Climate, Energy and Environment, 11 Nov 2025.
[21] "Achieving 100GW of renewable energy by 2030", Ministry of Climate, Energy and Environment, 19 May 2026.
[22] "Minister of Climate, Energy and Environment Meets CEOs of Five State-Owned Power Generation Companies to Discuss Functional Restructuring", Ministry of Climate, Energy and Environment, 14 Jul 2026.
[23] "Power demand forecast revised to reflect three megaprojects", Yonhap News Agency, 15 Aug 2026.

Conclusions

KOSOPW extends the emerging Korean utility model of using transition finance for defined coal replacement rather than general gas expansion. Its identified projects are material, covering around half of current coal capacity, but the pathway beyond LNG is less clearly defined than for KOMIPO and KOEWPW.

The forthcoming 12th Basic Plan is expected to provide further detail on Korea's power-sector transition. For investors, the key question is how emissions reductions from KOSOPW's coal-to-CCGT projects contribute to its 72% GHG reduction target by 2035, and whether hydrogen and other abatement measures are deployed quickly enough to sustain that trajectory. Further disclosure on project-level emissions reductions and hydrogen deployment milestones would help assess whether coal retirement is followed by measurable and time-bound progress away from unabated gas.

Version log

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