

2H 2023 KEY INDICATORS*

No. of Operators / Data Centres
21 / 43

In Operation
353MW

Under Construction / Planned
608MW

Vacancy Rate
9%

* Key Indicators are based on operational or under construction Hyperscale Cloud, Colo, Edge & Telco data centre facilities by major operators in the greater Seoul market and excludes Captive and ICT.
Source: Cushman & Wakefield

Market Overview

The Greater Seoul Area (GSA) claimed a 77% share of Korea's national data centre market in the 2H 2023 period, down from 85% recorded in our 1H update. This is primarily attributed to the government's aim to promote and incentivise data centre investment into other regions to help balance the country's power usage profile. As a result, the number of operational data centres in areas outside of Greater Seoul, such as Gangwon, Pohang and Sejong, has grown. However, 100MW of operational supply was still added in Seoul in 2H, with new operators Samsung SDS, Hanhwa S&C, Daou Technology and IGIS Asset Management entering the market since our last update.

Despite the government's efforts to decentralise data centres, 66% of demand for data centre power supply by 2032 is set to be concentrated in the GSA, raising calls for more effective decentralisation incentive policies.

Development / Sales & Investment

In the second half of 2023, seven data centre projects obtained new building permits, three completed the commencement notice, and three completed construction. The three completed projects are Hanam IDC in Hanam-si, LG Uplus Pyeongchon 2nd Centre in Anyang-si, and SL2x in Goyang-si, Gyeonggi-do. Tenancy leases have also been signed for the Hanam IDC and LG Uplus Pyeongchon 2nd Centre projects. Hanam IDC, developed by IGIS AMC, is set to be sold through a share deal, becoming the first data centre facility transaction if the sale closes.

With the rapid growth of the data centre market in the GSA, civil complaints about high-voltage electromagnetic waves, noise, and heat islands are also on the rise. A data centre development plan in Hoge-dong, Dongan-gu, Anyang-si, was withdrawn in October 2023 after the developer sold the planned site, while a colocation data centre development project in Gimpo has not commenced construction fully two years on from gaining the permits in 2021. On the other hand, the LG Uplus Pyeongchon 2nd Centre was successfully completed even though construction had been suspended due to civil complaints, thanks to efforts such as signing a long-term agreement with the city authorities and civil unions to install shields on the underground section of the high-voltage power cable.

Within the Ansan cluster, which has emerged as a major data centre supply area, KORAMCO AMC has begun construction of the Sihwa Data Centre, while Shinyoung's Ansan Global Meta Data Centre has completed the permitting process. Furthermore, based on the approved structural upgrading plan revision for Banwol-Sihwa National Industrial Complex, announced in November 2023, the Ansan Sihwa Global IDC development project located at 668-1 Seonggok-dong, Danwon-gu, Ansan-si has been selected as a new structural upgrading project.

Policy & Regulations

In accordance with the government's policy to decentralise data centres, the value of planned sites in the GSA is rising. Sites with secure electricity supply capacity are priced at least 30% higher than adjacent land, leading to a surge of power applications for operators seeking opportunistic profits. To prevent overinvestment in infrastructure by skewing demand, KEPCO conducted an audit of electricity supply in July 2023. After reviewing 1,001 notifications of data centre electricity usage plans from January 2020 to February 2023, 67.7% (678 cases) were revealed to be fictitious applications. To prevent such indiscriminate applications and profiteering activities via the pre-emption of electricity, the Ministry of Trade, Industry and Energy has published a legislative notice to amend the Enforcement Decree of the Electricity Business Act. This amendment allows KEPCO to refuse to supply electricity to data centres that request large capacity electricity supply for over 5,000 kW in advance of actual use and without the approval of the location's land and building owners. KEPCO has also amended the Basic Terms and Conditions of Electricity Supply, stating that an application may be rejected if an electricity use contract is not concluded within one year from the date of sending the contract. Additionally, the electricity use contract may be terminated if the electricity supply does not commence by the sixth month of the scheduled commencement date.

More Information

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2H 2023 BUILDING PERMITS ACQUIREMENT LIST

PROPERTY NAME	LOCATION	CLUSTER	OPERATOR/DEVELOPER	SQM	IT LOAD (MW)
Ansan Global Meta Data Centre	Ansan	Ansan	Shinyoung	83,093	40
Yongin Deokseong-ri Data Centre	Yongin	Seongnam/Yongin	Yongin Deokseong Data Centre PFV	64,704	N/A
Wonchang-dong Data Centre	Incheon	Incheon/Bucheon	YIDO	46,116	N/A
Incheon Gajaw Tech Centre	Incheon	Incheon/Bucheon	AWS	44,813	N/A
Guro Hang-dong Data Centre	Guro	Mokdong/Gasan	Urim TS	44,336	N/A
Urim TS IDC Sarihyeon-dong	Goyang	Sangam/Ilsan	Urim TS	42,170	N/A
KORAMCO Shihwa Data Centre	Ansan	Ansan	KORAMCO AMC	35,135	24

2H 2023 CONSTRUCTION COMMENCEMENT LIST

PROPERTY NAME	LOCATION	CLUSTER	OPERATOR/DEVELOPER	SQM	IT LOAD (MW)
Daou Cloud Data Centre	Yongin	Seongnam/Yongin	Daou Tech	36,131	24
SKB Yanju DC	Yangju	Others	SK Broadband	12,302	N/A
KORAMCO Shihwa Data Centre	Ansan	Ansan	KORAMCO AMC	35,135	24

2H 2023 NEW SUPPLIES LIST

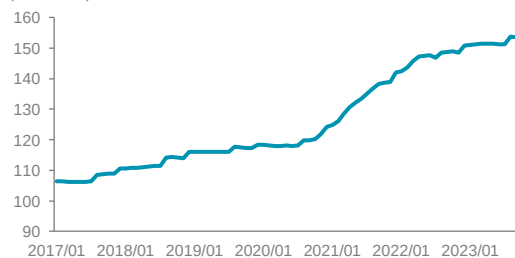
PROPERTY NAME	LOCATION	CLUSTER	OPERATOR/DEVELOPER	SQM	IT LOAD (MW)
Hanam IDC	Hanam	Others	IGIS AMC	41,919	25
SL2x	Goyang	Sangam/Ilsan	Equinix	21,852	24 (Phase1: 12MW)
LG Uplus Pyeongchon 2nd Centre	Anyang	Anyang/Gwacheon	LG Uplus	40,450	24 (Phase1: 12MW)

2H 2023 SALES

LOCATION	ZONING	SQM	PRICE (Mn.KRW)	SALES DATE
Wonchang-dong, Seo-gu, Incheon	General Industrial Area	50,385 (Land)	105,000	Jul-23
Danwon-gu, Ansan-si, Gyeonggi-do	General Industrial Area	13,341 (Land) & 12,393 (Building)	120,000	Aug-23
Danwon-gu, Ansan-si, Gyeonggi-do	General Industrial Area	10,448 (Land) & 4,862 (Building)	41,080	Oct-23

KOREA CONSTRUCTION COST INDEX

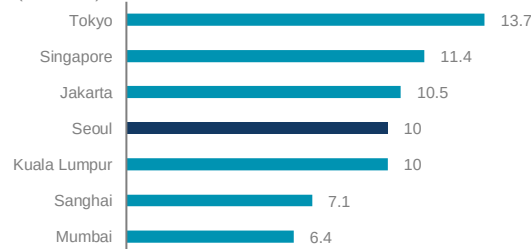
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Source: Korea Institute of Civil Engineering

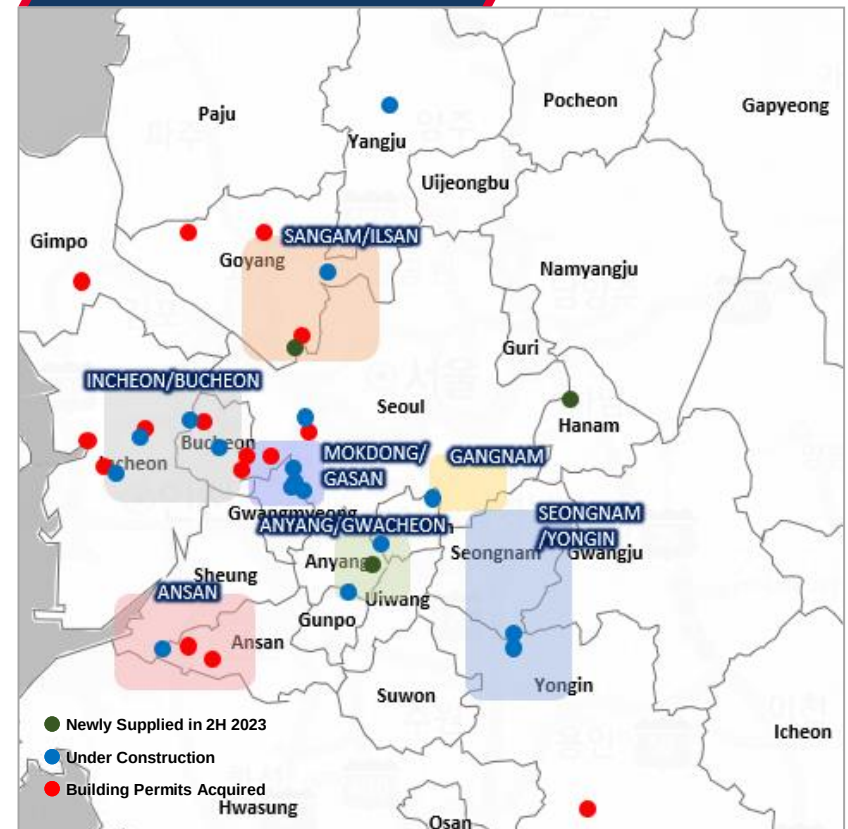
ASIA DATA CENTRE COST INDEX 2023

(USD/Watt)



Source: Turner and Townsend

2H 2023 DEVELOPMENT MAP*



* Based on Hyperscale Cloud, Colo, Edge & Telco data centre facilities that have completed construction permits or commencement notice to MOLIT by the 2H 2023 and excludes existing supplied facilities, Captive and ICT.