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Common Market for Eastern and Southern Africa

Case File No. CCC/MER/09/39/2024

Decision[1] of the 114th Meeting of the Committee Responsible for Initial Determinations Regarding the Proposed Acquisition of control by Robert Bosch GMBH of the Residential and Light Commercial Heating, Ventilation, and Air Conditioning Business of Johnson Controls International plc

ECONOMIC SECTOR: Manufacturing

COMESA COMPETITION COMMISSION * 19 FEB 2025

19 February 2025

[1] In the published version of this decision, some information has been omitted pursuant to Rule 73 of the COMESA Competition Rules concerning non-disclosure of business secrets and other confidential information. Where possible, the information omitted has been replaced by ranges of figures or a general description.

The Committee Responsible for Initial Determinations,

Cognisant of Article 55 of the Treaty establishing the Common Market for Eastern and Southern Africa (the "**COMESA Treaty**");

Having regard to the COMESA Competition Regulations of 2004 (the "**Regulations**"), and in particular Part 4 thereof;

Mindful of the COMESA Competition Rules of 2004, as amended by the COMESA Competition [Amendment] Rules, 2014 (the "**Rules**");

Conscious of the Rules on the Determination of Merger Notification Thresholds and Method of Calculation of 2015;

Having regard to the COMESA Merger Assessment Guidelines of 2014;

Recalling the overriding need to establish a Common Market;

Recognising that anti-competitive mergers may constitute an obstacle to the achievement of economic growth, trade liberalization and economic efficiency in the COMESA Member States;

Considering that the continued growth in regionalization of business activities correspondingly increases the likelihood that anti-competitive mergers in one Member State may adversely affect competition in another Member State,

Desirous of the overriding COMESA Treaty objective of strengthening and achieving convergence of COMESA Member States' economies through the attainment of full market integration,

Determines as follows:

Introduction and Relevant Background

1. On 6 November 2024, the COMESA Competition Commission (the "**Commission**") received a notification for approval of the merger regarding the proposed acquisition of control by Robert Bosch GmbH ("**Bosch**", together with its controlled and controlling affiliates, the "**acquiring group**") of Jonhson Controls International plc's ("**JCI**") residential and light commercial Heating, Ventilation, and Air Conditioning ("**HVAC**") business (the "**target**"), pursuant to Article 24(1) of the Regulations.

2. The Commission observed that the transaction was notified after the statutory time prescribed for notification of transactions. Article 24(1) of the Regulations provides that, "*A party to a notifiable merger shall notify the Commission in writing of the proposed merger as soon as practicable but in no event later than 30 days of the parties' decision to merge*".

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3. The decision to merge in the transaction was at the latest made on 23 July 2024 according to the signed the Share Purchase Agreement for transaction.

4. Pursuant to Article 26 of the Regulations, the Commission is required to assess whether the transaction between the parties would or is likely to have the effect of substantially preventing or lessening competition or would be contrary to public interest in the Common Market.

5. Pursuant to Article 13(4) of the Regulations, there is established a Committee Responsible for Initial Determinations, referred to as the CID. The decision of the CID is set out below.

The Parties

Bosch (the "acquiring firm")

6. The parties submitted that Bosch is a private, globally active supplier of technology solutions for a wide variety of industries, headquartered in Gerlingen, Germany. Its activities are organized in four business divisions: (i) Mobility Solutions, (ii) Industrial Technology, (iii) Consumer Goods, and (iv) Energy and Building Technology. Bosch Home Comfort, a part of the Energy and Building Technology division, provides a wide range of heating, cooling, and home comfort solutions.

7. Within the Common Market, the acquiring group operates in Burundi, Democratic Republic of Congo ("**DRC**"), Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Libya, Madagascar, Mauritius, Rwanda, Seychelles, Sudan, Tunisia, Uganda, Zambia and Zimbabwe.

JCI residential and light commercial HVAC Business (the "target")

8. The Parties submitted that JCI, headquartered in Cork, Ireland, is a public multi-industrial company active in engineering, manufacturing and commissioning building products and systems, including residential and commercial HVAC equipment, industrial refrigeration systems, controls, security systems, fire-detection systems and fire-suppression solutions. Further, the target manufactures "direct expansion" HVAC systems that include ducted systems, room air conditioner systems, packaged air conditioner systems, and variable refrigerant flow systems, and "hydronic systems", including ductless chillers and hydronic heat pumps. Ducted systems are manufactured and marketed by JCI, and ductless systems are manufactured and marketed by Johnson Controls-Hitachi Air Conditioning Holding (UK) Ltd ("JCH").

9. Within the Common Market, the target operates in Egypt, Ethiopia, Kenya, Libya, Mauritius, Tunisia, Uganda and Zambia.

Jurisdiction of the Commission

10. Rule 4 of the Rules on the Determination of Merger Notification Thresholds and Method of Calculation (the "**Merger Notification Thresholds Rules**") provides that:

> *"Any merger, where both the acquiring firm and the target firm, or either the acquiring firm or* the *target firm, operate in two or more Member States, shall be notifiable if:*
>
> *a) the combined annual turnover or combined value of assets, whichever is higher, in the Common Market of all parties to a merger equals or exceeds USD 50 million; and*
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> *b) the annual turnover or value of assets, whichever is higher, in the Common Market of each of at least two of the parties to a merger equals or exceeds USD 10 million, unless each of the parties to a merger achieves at least two-thirds of its aggregate turnover or assets in the Common Market within one and the same Member State".*

11. The undertakings concerned have operations in two or more Member States. The undertakings concerned derived a turnover of more than the threshold of USD 50 million in the Common Market and they each derived a turnover of more than USD 10 million in the Common Market. In addition, the parties do not hold more than two-thirds of their respective aggregate turnover or asset value in one and the same Member State. The CID was thus satisfied that the transaction constitutes a notifiable transaction within the meaning of Article 23(5)(a) of the Regulations.

Details of the Merger

12. The proposed transaction entails the acquisition of control by Bosch of the residential and light commercial HVAC business of JCI, including JCH.

Competition Analysis

Consideration of the Relevant Markets

Relevant Product Market

13. Paragraph 7 of the Commission's Guidelines on Market Definition states that a ***"relevant product market comprises all those products and/or services which are regarded as interchangeable or substitutable by the consumer/customer, by reason of the products' characteristics, their prices and their intended use"***.

14. The CID noted that the acquiring group is active in the broader markets of mobility solutions, industrial technology, consumer goods, and energy and building technology, including in the heating, ventilation, and air conditioning technologies. Within the Common Market, in particular, the acquiring group supplies residential and light commercial HVAC systems.

15. The CID also noted that the target is active in the supply of residential and light commercial HVAC systems. Within the Common Market, the target supplies residential and light commercial HVAC systems, in particular "packaged" air conditioners, room air conditioners, systems based on chilled water technology, and systems using variable refrigerant flow technology as well as related spare parts.

16. Accordingly, the CID observed that the transaction raised horizontal overlaps in the supply of residential and light commercial HVAC systems, in particular, "packaged" air conditioners, room air conditioners, systems based on chilled water technology, and systems using variable refrigerant flow technology as well as related spare parts. Therefore, the CID considered the relevant product market as discussed below.

Supply of HVAC Systems

17. The CID noted that HVAC systems are systems that regulate the temperature, humidity, and air quality of indoor spaces. They are essentially air-conditioning systems that are used to provide conditioned air to a building, for instance, air whose temperature has been adjusted to achieve the desired temperature inside the building.[2] HVAC systems employ various technologies and come in different sizes and configurations suitable for different building sizes and types.

18. The CID observed that HVAC systems can be delineated by cooling capacity, catering to diverse end-user and application requirements. It can be segmented between residential and light commercial, medium commercial, and large commercial/industrial markets. Residential and light commercial HVAC systems are designed to condition the air in small to medium sized zones, such as homes, retail stores, restaurants, and small offices and hotels.[3] They function by means of a compressor that moves a highly pressurized refrigerant between a cold coil and a hot coil. Small-scale heating and cooling solutions such as central air conditioning and ductless mini-split systems, often used in homes and small commercial businesses.

19. Medium commercial systems are used in smaller offices, hotels, shopping centers, etc., whereas large commercial/industrial systems are employed in large offices and hotels, shopping-centers, public buildings and industry. For these last two

[2] See para.9 in European Commission Case No COMP/M.7375 - UTC / CIAT.
[3] See footnote 78 in European Commission Case No COMP/M.5421 - PANASONIC/ SANYO.

segments, products are custom-made solutions, and service and after-sale maintenance are key. Large commercial/Industrial HVAC solutions, on the other hand, are custom-built for manufacturing plants, warehouses, and specialized environments such as pharmaceutical clean rooms and data centers and are large-scale air handling units.

20. The CID observed that in ***UTC/CIAT***[4], the European Commission ("**EC**") considered segmentation of the market using three categories namely cooling output capacity measured in kW as follows: residential and light commercial (0–50 kW), medium commercial (50–350 kW), and heavy commercial and industrial (>350 kW). Further, in ***Daikin/OYL***[5]***,*** the EC segmented the market based on cooling power capacity between residential and light commercial systems (up to 25 kW), medium commercial systems (25–250 kW), and heavy commercial systems (>250 kW). The CID observed that this framework underscores the industry's recognition of varying market needs based on system capacity.

21. Given the overlapping products of the parties are limited to the residential and light commercial HVAC systems, the CID limited its assessment of the relevant market to this segment. The CID considered that the possibility of segmenting the residential and light commercial HVAC systems market as follows.

The supply of residential and light commercial HVAC systems/solutions

22. The CID noted that the target supplies various categories of residential and light commercial HVAC systems, including packaged air conditioners (PAC), room air conditioners (RAC), variable refrigerant flow (VRF) systems, and chilled water-based systems (Chillers).

23. PAC are air conditioning systems in which all components, including the condenser and evaporator, are contained within the same unit, unlike split systems where these components are separated.[6] These systems are commonly used in small to medium-sized commercial buildings, retail stores, small offices, residential areas, and restaurants, where centralized cooling is required.[7] PAC units are often installed on rooftops or outdoor spaces, making them ideal for light commercial applications. While PAC systems compete with split systems and VRF units, their compact design and ease of installation make them a preferred choice for customers seeking an all-in-one solution.

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[4] See para. 12 in European Commission Case No COMP/M.7375 - UTC / CIAT
[5] See European Commission Case No COMP/M.4271.
[6] https://www.hitachiaircon.com/glossary/packaged-unit, accessed on 27 January 2025.
[7] https://www.kl-telecom.com/resources/precision-air-conditioner-pac.html#:~:text=The%20maintenance%20of%20the%20temperature,temperature%20and%20humidity%20swings%20to%20occur., accessed on 27 January 2025.

24. RAC are standalone, self-contained cooling units designed for individual rooms or small commercial spaces.[8] These units are typically rectangular or square and are installed through a wall or in a window, providing localized cooling or heating without the need for extensive ductwork. RAC systems are widely used in residential apartments, hotel rooms, and small offices where centralized air conditioning is either unnecessary or impractical. The cooled air is distributed through a vent on the front of the unit.

25. VRF systems are highly efficient HVAC solutions that connect multiple indoor units to a single outdoor unit, allowing for precise zonal temperature control.[9]This technology is particularly suited for hotels, office buildings, multi-tenant residential complexes, and commercial spaces where different temperature zones are required.[10] By enabling a single compressor system to serve multiple indoor units, VRF systems enhance efficiency and allow for more effective temperature management across different areas of a building. VRF can provide cooling and heating services to different rooms at a time. Their zoning capabilities and superior efficiency distinguish them as a separate market segment.

26. Chillers, which rely on chilled water technology, are used for cooling spaces such as apartments but require professional installation due to their piping systems.[11] They are preferred in large facilities like airports, factories, and large hotels, whereas VRF systems are more commonly used in residential buildings and multi-purpose facilities such as schools, markets, shopping malls, and offices. Chillers occupy a distinct market segment with limited substitutability with PAC or VRF systems, as require[12] professional installation and involve pipe infrastructures to transport the water which makes switching to a VRF system or packaged unit unlikely.

27. Accordingly, the CID noted that the market for residential and light commercial HVAC systems consists of distinct product categories designed to meet varying customer needs. PAC and RAC primarily serve residential and small commercial applications, with PAC systems catering to rooftop and ducted installations, while RAC units provide individual room cooling solutions. VRF systems, on the other hand, are designed for multi-tenant residential complexes and commercial spaces requiring zoning flexibility, thereby serving a different customer segment. Similarly, the European Commission has identified various product segmentations within the residential and small commercial air conditioning market, including window

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[8] https://www.wavelec.com.au/types/rac-air-conditioners#:~:text=An%20RAC%20air%20conditioner%20is,the%20front%20of%20the%20unit., accessed on 27 January 2025.
[9] https://schnackel.com/blogs/what-is-variable-refrigerant-flow-vrf, accessed on 27 January 2025.
[10] Ibid.
[11] https://www.lg.com/global/business/hvac-blog/hvac-engineers-take-on-the-ultimate-debate-chiller-or-vrf, accessed on 28 January 2025.
[12] See footnote 11 in European Commission Case No COMP/M.4271 - DAIKIN / OYL.

systems (with cooling capacity of up to 10-12 kw), portable units (with cooling capacity of up to 10-12 kw), mini-chillers (with cooling capacity of up to 25kw), and room air conditioners (with cooling capacity of up to 25 kw).[13]

28. Therefore, for the purposes of conducting a competitive assessment in the current transaction, the CID determined that the relevant product markets are ***the supply of residential and light commercial HVAC systems***, specifically:

    a) ***Supply of PAC solutions,***
    b) ***Supply of RAC solutions,***
    c) ***Supply of VRF solutions, and***
    d) ***Supply of chillers solutions***.

Relevant Geographic Market

29. The CID observed that the Commission's Guidelines on Market Definition define the relevant geographic market as comprising ***"...the area in which the undertakings concerned are involved in the supply and demand of products or services, in which the conditions of competition are sufficiently homogeneous, and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different in those areas"***.[14]

30. The CID considered that the geographic scope for the supply of residential and light commercial HVAC systems, specifically PAC, RAC, VRF, and Chillers solutions, was likely to be global. The CID considered that the major international manufacturers and suppliers of residential and light commercial HVAC systems were present and actively compete across multiple regions worldwide.

31. The CID noted that some of the major well-established global players,[15] included Carrier Global Corporation (USA), Daikin Industries Ltd (Japan), Danfoss AS (Denmark), Emerson Electric Co. (USA), Honeywell International Inc. (USA), Johnson Controls International – the target (Ireland), Lennox International Inc. (USA), LG Electronics Inc. (South Korea), Mitsubishi Electric Corporation (Japan), Panasonic Holdings Corporation (Japan), Samsung Electronics Co. Ltd. (South Korea), Trane Technologies plc (Ireland), and Whirlpool Corporation (USA). The CID observed that these companies operated on an international scale, manufacturing and distributing HVAC equipment across continents while offering standardized solutions that meet the operational and regulatory requirements of customers in various jurisdictions.

32. Furthermore, the CID observed that the merging parties supply residential and light commercial PAC, RAC, VRF, and Chillers solutions into the Common Market

[13] Ibid
[14] Paragraph 8 of the COMESA Guidelines on Market Definition, 2019
[15] https://www.imarcgroup.com/top-hvac-equipment-companies, accessed on 28 January 2025.

33. The CID acknowledged that that extensive supply chain highlights the global nature of competition, where products are sourced, distributed, and sold across borders without significant geographic constraints. Further, the ability of firms to serve multiple regions with relatively uniform products, alongside their engagement in cross-border trade, underscored the international scope of the market.

34. Given this globalized market structure, the CID considered that the supply of residential and light commercial HVAC systems, specifically PAC, RAC, VRF, and Chillers solutions, was global in scope.

35. In view of the above, the geographic scope for **the supply of residential and light commercial HVAC systems, specifically PAC, RAC, VRF, and Chillers solutions markets was global.**

Conclusion on Relevant Markets

36. Based on the foregoing assessment, and without prejudice to its future approach in similar cases, the CID identified the relevant markets as **the supply of residential and light commercial HVAC systems, specifically**:

(a) the global market for the supply of PAC solutions,

(b) the global market for the supply of RAC solutions,

(c) the global market for the supply of VRF solutions, and

(d) the global market for the supply of Chillers solutions.

Market Shares and Concentration

37. The CID observed that the global HVAC market was highly fragmented and characterized by the presence of several key global players including Daikin, the Medea Group, Gree Electric Appliances, Mitsubishi Electric, Trane Technologies, Johnson Controls, and Bosch.[16]

38. The CID also observed that the merger would result in a combined global market share of the merging parties of *[5 – 10]* %, translating into a *[0 – 5]* % market share accretion. The CID further observed that the merged entity's market share will be relatively small compared to other leading competitors, namely Daikin, Medea Group, Gree Electric Appliances, and Trane Technologies. The CID considered that the merger was not likely to significantly alter the competitive dynamics or raise competition concerns, as the merged entity would still face competition from the other players.

[16] https://en.deallab.info/hvac, accessed on 30 January 2025

39. The CID noted that the merging parties were both active in Tunisia. The CID observed that the HVAC systems market in Tunisia was competitive and fragmented, with the presence of several key players such as Unionaire Group, Condor from Algeria, and Westpoint. The CID noted that the acquiring firm held *[0 – 5]* % of the HVAC systems market while the target held *[0 – 5]* % of the market with the rest of the market shares being distributed amongst several other players. The CID observed that the HVAC systems market in Tunisia was fragmented, with multiple competitors and no single player was likely to unilaterally control prices, contributing to a competitive market environment.

40. The CID also noted that the transaction would result in a combined market share of *[0 – 5]* %, translating into a market share accretion of *[0 – 5]* % in Tunisia. The CID considered that the market accretion would be insignificant and would not create nor strengthen the merged entity to be a dominant player in the relevant market. Further, the HVAC market in Tunisia would remain competitive, with smaller competitors accounting for a substantial portion of the market.

41. The CID considered that given the fragmented nature of the market, the HVAC industry would remain highly competitive, with many global competitors maintaining their shares and competing across various regions and product segments. The CID also considered that limited market share accretion, suggests that the transaction was unlikely to result in a substantial effect on competition, particularly given the presence of strong competitors globally.

42. The CID considered that the transaction is not expected to significantly affect the market structure of the identified relevant markets, and the merged entity would continue to face competition pressures from existing global.

Consideration of Third-Party Views

43. In arriving at its determination, the CID also considered submissions from the national competition authorities of DRC, Egypt, Ethiopia, Kenya, Libya, Mauritius, Seychelles and Zimbabwe which confirmed the absence of competition and public interest concerns.

Determination

44. The CID determined that the merger is not likely to substantially prevent or lessen competition in the Common Market or a substantial part of it, nor will it be contrary to public interest. The CID further determined that the transaction is unlikely to negatively affect trade between Member States.

45. The CID, therefore, approved the transaction.

46. The foregoing notwithstanding, the CID observed that the transaction was notified beyond the timeline required under Article 24(1) of the Regulations. In view of this,

46. The foregoing notwithstanding, the CID observed that the transaction was notified beyond the timeline required under Article 24(1) of the Regulations. In view of this, the CID directed the Secretariat to conduct an investigation into the possible contravention of Article 24(1) of the Regulations by the parties to the transaction.

47. This decision is adopted in accordance with Article 26 of the Regulations.

Dated this 19th day of February 2025

Commissioner Dr Mahmoud Momtaz (Chairperson)

Commissioner Lloyds Vincent Nkhoma **Commissioner Vipin Naugah**