Case number: MAVCOM/ED/CC/DIV4/2021(2)

SECTION 55 OF THE MALAYSIAN AVIATION COMMISSION ACT 2015 [*ACT 771*] ANTICIPATED MERGER

Decision by the Malaysian Aviation Commission on an Application of an Anticipated Merger under Section 55 of the Malaysian Aviation Commission Act 2015 by SIA Engineering Company Limited and Pos Aviation Engineering Services Sdn Bhd

29 May 2023

Summary of the Decision:

1. The anticipated merger between SIA Engineering Company Limited and Pos Aviation Engineering Services Sdn Bhd falls within the scope of section 55 of the Malaysian Aviation Commission Act 2015 [*Act 771*]. The anticipated merger concerns the proposed acquisition by SIA Engineering Company Limited of 49% of the issued and paid-up share capital of Pos Aviation Engineering Services Sdn Bhd.

2. Upon assessing the notification and by virtue of section 55 of Act 771, the Commission concludes that the merger, if carried into effect, would not infringe the prohibition in section 54 of Act 771.

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TABLE OF CONTENTS

1.0 BACKGROUND

1. On 26 October 2021, the Malaysian Aviation Commission ("**Commission**") received a voluntary notification and application ("**Application**") of an anticipated merger ("**Anticipated Merger**") under section 55 of the Malaysian Aviation Commission Act 2015 [*Act 771*]. The Parties to this Anticipated Merger are SIA Engineering Company Limited ("**SIAEC**"), Pos Aviation Sdn Bhd ("**PASB**"), and Pos Aviation Engineering Services Sdn Bhd ("**PAES**") (collectively referred to as the "**Parties**"). The Application was jointly submitted by SIAEC and PASB, PAES' parent company.

2. The Anticipated Merger concerns the proposed acquisition by SIAEC of 49% of the issued and paid-up share capital of PAES from PASB. PASB will continue to hold 51% of PAES, post-acquisition. PAES will therefore, continue to have more than 50% of its shares held by a Malaysian person as required under PAES' Ground Handling Licence ("**GHL**") conditions issued by the Commission. The Anticipated Merger falls within the scope of aircraft line maintenance in Malaysia.

3. On 11 November 2021, the Commission published a summary of the Application on its website for the purpose of public consultation and invited the public to provide written feedback on the Application within the period of 11 November – 13 December 2021. The Commission also emailed PAES' competitors to inform them of the Application and solicit their feedback on questions pertaining to market definition, business plans, and barriers to entry within the same period. The Commission received written feedback from two (2) line maintenance service providers ("**Service Providers**"), namely [✄] and [✄] on 20 November 2021 and 10 December 2021, respectively.

4. The Commission had issued its Proposed Decision on the Application on 7 July 2022, which concluded that the merger, if carried into effect, would not infringe the prohibition in section 54 of Act 771. The Commission thereafter published the Proposed Decision on its website on 20 July 2022 for public consultation for a period of two (2) weeks. The Commission received one (1) feedback from [✄] on 3 August 2022.

5. This Decision is made upon taking full consideration of the Application, feedback received from the Parties and competitors, and the Commission's finding and analysis.

6. This Decision refers to airports and airlines according to the airport and airline codes as defined by the International Air Transport Association ("**IATA**"). The IATA airport and airline codes used are provided in **Appendix I**.

2.0 OVERVIEW OF THE PARTIES TO THE MERGER

2.1 Background on SIAEC

7. SIAEC was incorporated on 16 March 1982 and is a public company limited by shares. It is a subsidiary company of Singapore Airlines Limited ("**SQ**"). SQ is listed and traded on the Singapore Stock Exchange. As of 31 December 2021, Napier Investments Pte. Ltd. has an interest of 33.23% and Temasek Holdings (Private) Ltd. has an interest of 22.15% in SQ. In turn, SQ has an interest of 77.59% in SIAEC.

8. SIAEC is in the business of providing aviation maintenance, repair, and overhaul ("**MRO**") services and engineering services primarily in Singapore. These include technical and inventory fleet management aircraft, as well as component repair and overhaul services. SIAEC does not conduct any business activity in Malaysia.

2.2 Background on PAES

9. PAES is a wholly-owned subsidiary of PASB and PASB is a wholly-owned subsidiary of Pos Malaysia Berhad ("**Pos Malaysia**"). Pos Malaysia is a public-listed company. As of the date of the Application, Pos Malaysia's largest shareholders are DRB-HICOM Berhad and HICOM Holdings Bhd, holding 22.1% and 31.4% of shares, respectively, in Pos Malaysia. PAES was incorporated on 9 April 1998 and was previously known as KLAS Engineering Services Sdn Bhd up until November 2016. PAES is a private company limited by shares.

10. PAES holds a GHL from the Commission and a Technical Approval Certificate from the Civil Aviation Authority of Malaysia ("**CAAM**"). PAES is in the business of providing line maintenance services, which include aircraft maintenance certification and aircraft engineering services at various airports in Malaysia. PAES is licensed by the Commission to provide services falling within paragraph 5 of the Second Schedule of Act 771. Paragraph 5 of the Second Schedule of Act 771 is reproduced as follows:

> "*5. Aircraft maintenance, comprising—*
>
> *(a) routine services performed before flight;*
>
> *(b) non-routine services requested by the airport user;*
>
> *(c) the provision and administration of spare parts and suitable equipment;*
>
> *(d) the request for or reservation of a suitable parking and/or hangar space*."

11. Reference to the aircraft maintenance certification and aircraft engineering services, shall also mean line maintenance. For the purposes of this Decision, the Commission will refer to the scope of services provided by PAES as line maintenance.

12. PAES' parent company, PASB, is a ground handling company, which also holds a GHL from the Commission. It is licensed to carry out aircraft maintenance, as well as a wider range of ground handling services providing end-to-end ground handling services to airlines.

13. The arrangement between PASB and PAES is such that PASB would enter into contracts with airline customers to provide ground handling services at various airports, where PAES would be subcontracted to act as the Service Provider for line maintenance. To illustrate, upon the landing of an aircraft, PASB would undertake the ground handling services as required by the airline while PAES would undertake the necessary line maintenance services and provide aircraft certification before the aircraft takes off.

3.0 MAIN TRANSACTION OF THE MERGER

14. SIAEC and PASB entered into a Share Purchase Agreement ("**SPA**") and Shareholders Agreement ("**SHA**") on 13 February 2020 pursuant to the Anticipated Merger. The SPA sets out that SIAEC will purchase 49% of the issued and paid-up share capital in PAES from PASB. SIAEC would own 7,840,000 out of the total 16,000,000 ordinary shares, the remaining of which will continue to be owned by PASB.

15. The SHA governs the relationship of the shareholders and their mutually agreed rights, liabilities and obligations on matters concerning PAES.

    (a) According to the SHA, the Board of Directors will consist of up to [✂].

    (b) All decisions relating to PAES, [✂].

    (c) Decisions made pursuant to a [✂]. The decision-making mechanism in relation to [✂].

4.0 THE SUBSTANTIAL LESSENING OF COMPETITION TEST

4.1 Legal Framework

16. Subsection 54(1) of Act 771 prohibits mergers that have resulted or may be expected to result in a substantial lessening of competition ("**SLC**"). Mergers that are found to be pro-competitive, neutral towards competition or having a trivial effect of lessening competition are not prohibited under Act 771.

17. Based on Paragraph 4.4 of the Commission's Guidelines on Substantive Assessment of Mergers ("**Substantive Merger Guidelines**"), the determination of whether a merger has resulted or may be expected to result in an SLC would entail the following steps:

    (a) defining the relevant aviation service market;

    (b) developing a theory or theories of harm;

    (c) developing a counterfactual scenario; and

    (d) assessing the competition in a relevant aviation service market and comparing it with a counterfactual scenario.

18. Based on Paragraph 4.5 of the Substantive Merger Guidelines, the Commission is to consider the following factors when carrying out the SLC test:

    (a) aviation service market definition;

    (b) market power and market concentration;

(c) competitive effects arising from horizontal mergers;

(d) entry and expansion; or

(e) countervailing buyer power.

5.0 DEFINING THE RELEVANT AVIATION SERVICE MARKET

5.1 Legal Framework

19. Section 47 of Act 771 defines an "aviation service market" as "*a market for aviation services in Malaysia or in any part of Malaysia*". The Commission's Guidelines on Aviation Service Market Definition ("**Market Definition Guidelines**") provides that an aviation service market could include a group of services, which are substitutable or competitive with one another.[1]

20. The Market Definition Guidelines further states that the identification of the relevant aviation service market should generally consider two dimensions of the market—the service market and the geographical market.[2] An aviation service market definition depends on the facts of each case.

5.2 The Parties' Submission

Focal aviation services

21. The Parties submit that the focal aviation services relevant to the Anticipated Merger are aircraft maintenance certification and aircraft engineering services. The Parties further provide that there are no other services that are substitutable to the abovementioned Focal Aviation Service.

Geographical Market

22. The Parties submit that the geographical market could be defined in two ways, namely:

(a) by airport. The geographical market would be local in size and does not extend beyond a single airport. The Parties provide that this is because the services required at a particular airport cannot normally be substituted by services provided at other airports; and

(b) by catchment area. The geographical market would extend beyond a single airport and encompasses airports within the same catchment area. The Parties provide that this is because pricing for the Focal Aviation Services is constrained by competitors at the same airport and competitors active in other airports that are within the same catchment area. The Parties illustrated that the Sultan Abdul Aziz Shah Airport ("**SZB**") would be considered as being within the same

[1] Paragraph 2.1 of the Market Definition Guidelines, GL/Competition/ASMD/2018 (19 January 2018).
[2] Paragraph 3.1 of the Market Definition Guidelines.

catchment area as the Kuala Lumpur International Airport ("**KUL**") and therefore within the same geographical market.

23. The Parties provide further reasons for their views on why the geographical market may be defined as above:

(a) Tenders issued by airline customers are normally on an airport-by-airport basis. For renewal of contracts, airline customers may issue a tender for a number of airports within a country where the airline customers are already operating in a few airports, or they may split the tenders geographically by selecting different Service Providers for different airports;

(b) A Service Provider would need to first establish itself at an airport by obtaining the necessary authorisations and having warehouses, equipment and personnel at an airport to assist and provide services to airlines landing at the airport; and

(c) From a supply perspective, Service Providers compete for contracts at the airport level and not at the region- or country-level.

24. Although the Parties submit that the geographical market definition could be by airport or by catchment area, the Parties had submitted market share data by airport and had not used the catchment area definition.

Conclusion

25. The Parties submit that the Focal Aviation Services are the aircraft maintenance certification, and the aircraft engineering services. The Parties further provided their submission on market shares by airport, suggesting that the geographical market is at the airport-level, namely, the six (6) airports which PAES operates, or will operate in.

26. The Parties provide that PAES operates, or will operate in the following six (6) airports:

(a) Kuala Lumpur International Airport Terminal 1 ("**KUL T1**") and Kuala Lumpur International Airport Terminal 2 (previously referred to as klia2) ("**KUL T2**") (collectively referred to as "**KUL**");

(b) Penang International Airport ("**PEN**");

(c) Kota Kinabalu International Airport ("**BKI**");

(d) Kuching International Airport ("**KCH**");

(e) Langkawi International Airport ("**LGK**"); and

(f) Ipoh Sultan Azlan Shah Airport ("**IPH**").

5.3 The Commission's Analysis

Service Market

27. As regards the Service Market, the Commission agrees with the Parties that the Focal Aviation Services are the aircraft maintenance certification and the aircraft engineering services, which the Commission deems may be collectively referred to as line maintenance. The type of services required by airlines for line maintenance is generally the same across the industry as the requirements for aircraft maintenance certification are regulated and there is a minimum standard of service level requirement that must be adhered to by all Service Providers.

28. The Commission notes that while the types of services falling under line maintenance are the same, the differences between services would be the different types of aircraft that may be serviced by different Service Providers. For example, one Service Provider may have the competency to service a certain type of aircraft, while another Service Provider may not. As such, both Service Providers may potentially be in different Service Markets. However, the Commission finds such segregation to be irrelevant as the market of Service Providers in Malaysia is such that they are generally able to service the similar types of aircraft.

29. Furthermore, there is little encumbrance on a Service Provider to expand its aircraft competency and the expenditure required to do so is also not prohibitive. As such, a Service Provider would be able to quickly meet the demands of airlines that operate different types of aircraft.

30. There are also numerous types of aircraft that operate in Malaysia. In 2019, there were 56 sub-types of aircraft operating on Malaysia's domestic and international routes. As there are numerous types of aircraft that are used by airlines, the Commission therefore finds it unnecessary to make any distinction between aircraft types for the purposes of defining the Service Market.

31. The Commission therefore defines the Service Market to be line maintenance services.

32. The Commission has also identified the competitors that fall within the Service Market. There are two (2) types of competitors that fall within the Service Market:

    (a) Service Providers that are licensed to provide third party line maintenance services to airlines; and

    (b) Self-Handlers, which are airlines that self-handle the line maintenance services of their own aircraft (Service Providers and Self-Handlers shall collectively be referred to as "**Technical Handlers**").

33. Further elaboration on the types of competitors is in paragraph 58.

Geographical Market

34. In terms of the geographical market, the Commission finds that the market for line maintenance is localised at each airport. This is due to:

    (a) the nature of line maintenance services; and

    (b) the lack of demand-side substitutability between airports.

35. In relation to paragraph 34(a) above, the nature of line maintenance is such that it can only be provided at the particular airport an aircraft flies into. Line maintenance is a service that is undertaken during an aircraft's turnaround time while on the ground. Meanwhile, aircraft certification, which forms part of the line maintenance services, must be done before an aircraft takes off. As such, an aircraft cannot fly into an airport and then be serviced and certified at another airport.

36. In relation to paragraph 34(b) above, there are a few factors that may affect whether airlines would view the line maintenance services at one airport as substitutable with the line maintenance services at another neighbouring airport.

37. The factors that may affect an airline's decision may include the competency of a Service Provider present at a particular airport, as well as the quality and prices of line maintenance services. However, the Commission views such factors as having limited effects on the demand-side substitutability between airports:

    (a) The Commission views other factors, such as connectivity and customer demand as playing a much larger role in an airline's decision-making process;

    (b) Service Providers can expand to another airport where there is demand for their services. Therefore, there is a higher likelihood of an airline bringing in a new Service Provider into the airport it intends to fly into than an airline choosing not to fly into an airport because there is no Service Provider at the airport that it is willing to engage; and

    (c) Airlines carry out tenders to find Service Providers to engage at the airports they intend to fly into. It is therefore likely that airlines would be able to find Service Providers that could meet their needs. Should there be no suitable Service Providers, airlines could opt to self-handle the line maintenance services.

38. As such, the Commission finds that the geographical market is to be defined as being restricted to one airport as the nature of line maintenance services is such that it must be carried out at the airport and there is little to no demand-side substitutability between airports.

Geographical market definition by catchment area

39. Due to the above considerations in paragraphs 34 to 38, the Commission disagrees with the Parties' submission that the geographical market may be defined by catchment area.

Additionally, although prices of line maintenance services at one airport may affect the prices of line maintenance services at another airport, such a factor is typical of any industry with negotiable prices.

(a) A Service Provider would not necessarily reduce its prices in order to compete with another Service Provider operating at a neighbouring airport as airlines' choices on which airport to fly into would not solely be based on which airport has the lowest prices for line maintenance services.

(b) Price setting by Service Providers would not be determined solely by the prices at a specific neighbouring airport, but more by the market prices of line maintenance services generally.

40. As such, the Commission rejects defining the geographical market by catchment area for the Service Market of line maintenance.

41. The Parties have ultimately defined KUL as a market consisting only of KUL T1 and KUL T2 and have not included flight frequencies at SZB in its submission. The Commission similarly finds that KUL T1 and KUL T2 are to be considered as one airport as both terminals share the same ground area.

5.4 Conclusion

42. Based on the above considerations, the Commission concludes that there are six (6) Relevant Markets. The Relevant Markets are line maintenance services at the following airports:

(a) KUL;

(b) PEN;

(c) BKI;

(d) KCH;

(e) LGK; and

(f) IPH.

6.0 THEORY OF HARM: ANALYSING MARKET POWER AND MARKET CONCENTRATION

6.1 The Parties' Submission

Market Shares and Market Concentration

43. The Parties had submitted data on market shares in each Relevant Market for each year from 2017 to 2021 and the forecast market shares of PAES up to 2024. The market

shares of each Service Provider were calculated based on the flight frequency of airlines that the respective Service Provider engages with.

44. The Parties had also identified PAES' competitors in the Relevant Markets, which are the other Service Providers that provide line maintenance services. In presenting the data on market shares, the Parties had included the market shares of Service Providers, as well as airlines that undertake self-handling. Airlines that carry out self-handling are airlines that do not engage any third-party Service Provider but "self-handle" their own line maintenance either by having an appointed licensed aircraft engineer based at the airport or by carrying an engineer on board the flight.

45. The Parties had submitted that PAES' market shares are relatively small compared to its competitors in all the Relevant Markets. The Parties had also provided data on the market concentration in each Relevant Market using the Herfindahl-Hirschman Index ("**HHI**"). **Table 1** shows PAES' market shares and market concentrations for each Relevant Market as submitted by the Parties.[3]

Table 1: The Parties' Submission on Market Shares and Market Concentration in the Relevant Markets in 2021

Relevant Market	Total frequency	PAES' Market Shares		HHI
		%	Frequency	
KUL	39,007	[✄]	[✄]	[✄]
PEN	8,056	[✄]	[✄]	[✄]
BKI	17,208	[✄]	[✄]	[✄]
KCH	11,510	[✄]	[✄]	[✄]
LGK	4,986	[✄]	[✄]	[✄]
IPH	349	[✄]	[✄]	[✄]

Source: Parties' submission

46. As SIAEC is not present in Malaysia and does not compete with PAES in any of the Relevant Markets, the Anticipated Merger would not have any significant impact on market concentrations. The market concentration data submitted by the Parties indicate high market concentrations in BKI, LGK, and IPH. The Parties did not elaborate on the market concentrations that it submitted.

47. The Parties had provided their forecast market shares based on the assumption that PAES would be able to engage with the following customer airlines post-merger:

(a) [✄][4];

(b) [✄]; and

[3] The Parties' data on market shares include flight frequencies for scheduled and non-scheduled passenger flights, as well as cargo flights.

[4] SQ had another subsidiary, SilkAir Singapore Private Limited ("**MI**"). Since February 2021, SQ had begun integrating MI into its operations as part of merger plans between the two (2) airlines. Since then, SQ has taken over MI's network where routes previously serviced by MI are now serviced by SQ.

(c) [✂].

48. The Parties seek to leverage on SIAEC's network of airline customers post-merger and had accordingly prepared PAES' projected market shares based on this assumption. The Parties have also assumed that flight frequencies [✂]. Based on these assumptions, the Parties have projected the following market shares as below:

Table 2: The post-merger market shares of PAES and two largest market share holders in the Relevant Markets as submitted by the Parties

Relevant Market	KUL	PEN	BKI	KCH	LGK	IPH
PAES' market share (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
No. of transits to be serviced by PAES	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Largest market share holder (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Second largest market share holder (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: Parties' submission

49. PAES does not currently operate in IPH and KCH. In relation to IPH, the Parties have projected that PAES will service [✂] and will therefore hold [✂] of the market share. The Parties have also projected the re-entry of Batik Air Malaysia Sdn. Bhd. (formerly known as "Malindo Airways Sdn. Bhd.") ("**OD**") and FlyFirefly Sdn. Bhd. ("**FY**"). Based on the Commission's data, OD and FY do not currently operate in IPH. OD had stopped flying into IPH since July 2020 and FY had stopped since April 2019.

50. The Parties claim that they expect OD to resume its operations in IPH when demand returns to pre-pandemic levels as it currently sees AirAsia Berhad ("**AK**") increasing flight frequencies in IPH. The remaining market shares that the Parties projected for IPH are [✂].

Market Power and Countervailing Buyer Power

51. The Parties submitted that as PAES' market share is small and less than 25% in each of the Relevant Markets, except for IPH, PAES has no market power. The Parties also submitted that the local airlines, namely, Malaysia Airlines Berhad ("**MH**") and AK (and their respective affiliates, FY and AirAsia X Berhad ("**D7**")) which are already serviced by their own affiliated Service Providers, have significantly more flights flying in and out of Malaysian airports.

52. The Parties submitted that as these airlines are unlikely to engage PAES, PAES' market share would therefore remain small, and it would not be able to exercise any market power in view of the larger market shares of its competitors. The Parties submitted that in comparison, SQ's flight frequencies in and out of Malaysia are significantly fewer than that of the local airlines.

53. The Parties provide that the countervailing buyer power of airlines would continue to constrain PAES post-merger. The Parties submitted that as airlines can self-handle their

own aircraft, airlines can easily choose to not engage any Service Providers. The Parties note that this self-handling business model is being practised by some local and foreign airlines, which also include the cargo airlines. The Parties submitted that cargo airlines such as Kargo Xpress, World Cargo Airline Sdn Bhd, and MyJet Xpress Airlines are currently self-handling their own aircraft.

54. Additionally, although cargo airlines are increasing their capacities and frequencies, the Parties submit that such airlines would likely continue to self-handle as they already have their own internal engineering capabilities.

KUL

55. The Parties submitted that they do not have market power in KUL as their market share is small, at only [✄]. The Parties submitted that as KUL is the hub for MH and AK, their affiliated Service Providers therefore have significantly larger market shares. In 2021, MAB Engineering Sdn Bhd's ("**MABE**") market share was [✄] and ADE's market share was [✄].

Other Relevant Markets apart from KUL and IPH

56. The Parties' submission on countervailing buyer power in other Relevant Markets, except for IPH, is similar to their submission above which is that PAES has a small market share and that the local airlines present at each Relevant Market provide a strong countervailing buyer power against PAES. The Parties submitted that as the frequency of foreign airlines in airports other than KUL are much fewer, this translates to smaller market shares for the third-party Service Providers. Additionally, PAES also has to compete with Dviation and KLMSB, which also service the fewer number of foreign airlines.

IPH

57. The Parties also note that the two (2) airlines, [✄], that are currently operating in IPH, undertake self-handling. This is because IPH currently does not have an engineering set up in terms of equipment readiness and engineering facilities.

6.2 The Commission's Analysis

Market Shares and Market Concentration

58. **Competitors**. As mentioned in paragraph 32 above, the Commission has identified two (2) types of competitors in the Service Market of line maintenance, namely, Service Providers and Self-Handlers.

(a) Although Self-Handlers do not compete with PAES for contracts with airlines, the Commission notes that Self-Handlers are to be considered as PAES' competitors as the airlines can choose between self-handling or engaging Service Providers like PAES. As airlines have the option of engaging PAES, from a supply-side perspective, this makes PAES a competitor of Self-Handlers.

59. **Calculation of market shares**. The Commission agrees with the Parties' method of calculating market shares, which uses the flight frequencies of airlines and allocating such frequencies to the corresponding Technical Handlers.

(a) The Commission used its own data on market shares and notes that the Parties' data on market shares are close to the Commission's data. The Commission uses its own data on flight frequencies and tags the airlines' frequencies to the corresponding Service Provider based on the information submitted by the Parties. The Commission's data on flight frequency by Technical Handler from 2017 – 2022 in the Relevant Markets are in **Appendix II**. The Commission's data on market shares by Technical Handler from 2017 – 2022 in the Relevant Markets are in **Appendix III**.

(b) The Commission's analysis considers the forecast of market shares based on pre-pandemic levels. As such, the Commission's projections are based on flight frequency in 2019. PAES' forecast market shares would constitute the frequencies of SQ and TR, airlines it has been engaging with, as well as airlines it will most likely engage with (based on the customer capture plan provided by the Parties in its submission).

60. **Market concentration**. The Commission has found the calculation of market concentrations to have little bearing on the Commission's analysis.

(a) This is due to the fact that Technical Handlers have little to no ability to influence market concentrations as market shares are determined by airlines' frequency. To illustrate, the higher an airline's frequency in a Relevant Market, the higher the market share of the corresponding Service Provider. Similarly, a Service Provider that has serviced an airline at a particular airport would lose its market share should the airline exit the airport.

(b) Further, the Anticipated Merger between SIAEC and PAES is an acquisition of shares which has little effect on market concentration. There is no consolidation of different entities as SIAEC has no presence in Malaysia and does not compete with PAES.

61. As such, the Commission places little emphasis on market concentrations for the line maintenance Service Market and includes such information only for the purposes of providing information on the market environment. The data on market concentration will not be relied on in the Commission's analysis.

KUL

62. **Table 3** shows the market shares from 2019 to 2022, as well as the projected market shares post-merger in KUL.

Table 3: Market shares (%) of PAES and two largest market share holders in KUL

Technical Handler	2019	2020	2021	2022	Post-merger
PAES' market share (%)	[✂]	[✂]	[✂]	[✂]	[✂]
Largest market share holder (%)	[✂]	[✂]	[✂]	[✂]	[✂]
Second largest market share holder (%)	[✂]	[✂]	[✂]	[✂]	[✂]

Source: Commission's analysis

63. The Commission notes that PAES' market shares have continuously been small throughout the years where it was only [✂]. Although there are more foreign airlines at KUL, PAES' market share is still smaller as compared to its competitors as it has not captured enough foreign airline customers. PAES services only [✂] airlines at KUL, namely, [✂]. In 2021, the frequencies of all [✂] airlines make up PAES' market share of [✂]. The percentage of local airlines operating at KUL as opposed to foreign airlines in 2021 is 56.5% (2019: 77.4%).

64. In relation to PAES' projected market share, the Commission finds that PAES' market share post-merger would amount to [✂] in view that it expects to service [✂], on top of the [✂] airlines that it has been servicing at KUL.

65. As PAES' market share would remain small in KUL, the Commission does not find it necessary to elaborate on its findings on market power and the competitive effects of the merger for the KUL market.

PEN

66. **Table 4** shows the market shares from 2019 to 2022, as well as the projected market shares post-merger in PEN.

Table 4: Market shares (%) of PAES and two largest market share holders in PEN

Technical Handler	2019	2020	2021	2022	Post-merger
PAES' market share (%)	[✂]	[✂]	[✂]	[✂]	[✂]
Largest market share holder (%)	[✂]	[✂]	[✂]	[✂]	[✂]
Second largest market share holder (%)	[✂]	[✂]	[✂][5]	[✂]	[✂]

Source: Commission's analysis

67. PAES' market share in 2019 was [✂] whereas [✂], which had the biggest market share, had a share of [✂]. PAES' market share post-merger is expected to be higher, at [✂] as it plans to serve [✂], as well as the airlines that it had been servicing in PEN.

68. PAES' projected market share would still be considered small. However, as PAES would hold the third largest market share in PEN, the Commission has further elaborated on its

[5] Self FOCA refers to self-handling foreign airlines.

findings on market power and countervailing buyer power for the PEN market further below in paragraph 89.

BKI

69. **Table 5** shows the market shares from 2019 to 2022, as well as the projected market shares post-merger in BKI.

Table 5: Market shares (%) of PAES and two largest market share holders in BKI

Technical Handler	2019	2020	2021	2022	Post-merger
PAES' market share (%)	[✂]	[✂]	[✂]	[✂]	[✂]
Largest market share holder (%)	[✂]	[✂]	[✂]	[✂]	[✂]
Second largest market share holder (%)	[✂]	[✂]	[✂][6]	[✂]	[✂]

Source: Commission's analysis

70. PAES' market share in 2019 was [✂]. The Commission found that PAES' customer, [✂], did not operate at BKI in 2021. As such, PAES has no market share in BKI for that year. However, in 2022, [✂], which would result in an estimated market share of [✂] for PAES. PAES' projected market share would be [✂] post-merger based on its 2019 market share. The projected market share is slightly lower than 2022 due to the expected [✂].

71. The Commission further notes that the Parties intend to capture the [✂] business in BKI. If PAES serves both [✂] post-merger, its projected market share would amount to [✂]. However, PAES' plan to capture the [✂] business in BKI has not been substantiated by any form of confirmation by [✂]. Further, the Commission found that [✂] has been carrying out self-handling for its fleet in BKI. Should PAES fail to contract with [✂], PAES' market share is therefore expected to be [✂].

72. As PAES' market share would remain small (with or without being engaged by [✂]), the Commission does not find it necessary to elaborate on its findings on market power and the competitive effects of the merger for the BKI market.

KCH

73. **Table 6** shows the market shares from 2019 to 2022, as well as the projected market shares post-merger in KCH.

Table 6: Market shares (%) of PAES and two largest market share holders in KCH

Technical Handler	2019	2020	2021	2022	Post-merger
PAES' market share (%)	[✂]	[✂]	[✂]	[✂]	[✂]
Largest market share holder (%)	[✂]	[✂]	[✂]	[✂]	[✂]
Second largest market share holder (%)	[✂]	[✂]	[✂]	[✂]	[✂]

Source: Commission's analysis

[6] Self (Adhoc) refers to airlines that operate non-scheduled flights and carry out self-handling for their aircraft.

74. The Commission finds that PAES did not operate in KCH and that it plans to capture [✂] in KCH in 2023. According to the Commission's data on airlines' planned seat capacity for 2022, it appears that [✂]. PAES' projected market share post-merger consists of the frequency of [✂] in 2019, which would amount to [✂]. Further, should it be able to capture the [✂] business in KCH, its market share would increase to [✂]. However, similar to the Commission's analysis in relation to PAES' plan to capture the [✂] business in BKI, the Commission finds that there is no confirmation that PAES' would be able to contract with [✂] so as to increase its market share in KCH.

75. PAES' market shares have been small and is expected to remain small in KCH. The Commission therefore does not find it necessary to elaborate on its findings on market power and the competitive effects of the merger for the KCH market.

LGK

76. **Table 7** shows the market shares from 2019 to 2022, as well as the projected market shares post-merger in LGK.

Table 7: Market shares (%) of PAES and two largest market share holders in LGK

Technical Handler	2019	2020	2021	2022	Post-merger
PAES' market share (%)	[✂]	[✂]	[✂]	[✂]	[✂]
Largest market share holder (%)	[✂]	[✂]	[✂]	[✂]	[✂]
Second largest market share holder (%)	[✂]	[✂]	[✂]	[✂]	[✂]

Source: Commission's analysis

77. PAES' market share in 2019 was [✂]. The Commission notes that PAES' customer in LGK, [✂], had stopped flying into LGK since 2020 and [✂].

78. The Commission notes, however, that there is a possibility that [✂] may return to LGK and in the event PAES serves [✂], PAES' market share would amount to [✂]. Its market share would remain small where [✂] market share pre-pandemic in 2019 amounted to only [✂] of the total frequency in LGK, while [✂] had a [✂] market share.

79. As PAES' market share in LGK is expected to remain small as compared to its competitors, the Commission therefore does not find it necessary to elaborate on its findings on market power and the competitive effects of the merger for the LGK market.

IPH

80. **Table 8** shows the market shares from 2019 to 2022, as well as the projected market shares post-merger in IPH.

Table 8: Market shares (%) of PAES and two largest market share holders in IPH

Technical Handler	2019	2020	2021	2022	Post-merger
PAES' market share (%)	[✂]	[✂]	[✂]	[✂]	[✂]
Largest market share holder (%)	[✂]	[✂]	[✂]	[✂]	[✂]
Second largest market share holder (%)	[✂]	[✂]	[✂]	[✂]	

Source: Commission's analysis

81. The Commission notes that PAES has not begun its operations in IPH and that it intends to capture the [✂] business at IPH, which it plans to begin serving in [✂].

82. As to PAES' claim that OD will return to IPH, the Commission has found that, OD and FY [✂], according to OD's and FY's seat capacity plan. OD had stopped flying to IPH since the pandemic and FY had stopped flying into IPH since April 2019. As such, the Commission finds that IPH will continue to be served by [✂].

83. The Commission accepts that there is a possibility that [✂]. However, such possibility is merely speculative, and as at the date of this Decision, [✂]. Should PAES capture the [✂] business, the Commission expects PAES' projected market share in IPH to be approximately [✂], based on [✂]. Although PAES' market share would be smaller than its competitor's market share, PAES would be the only Service Provider in a duopoly market with PAES' competitor being a Self-Handler.

84. As such, the Commission has carried out further analysis on the IPH market and its analysis on market power, countervailing buyer power, and competitive effects below are based on the presence of only [✂] in IPH.

Market Power and Countervailing Buyer Power

The Relevant Markets except for IPH

85. In relation to the Commission's assessment of the Relevant Markets other than IPH, the Commission found that PAES would not have market power as PAES' market shares are small as compared to that of its competitors and there is an effective countervailing buyer power that can be exercised by the airlines against the Service Providers.

86. The Commission accepts that local airlines would not engage PAES or other Service Providers as those airlines would be serviced by their respective subsidiaries, such as MABE, Malindo Airways (as a GHL holder), and ADE or would carry out self-handling. The Commission also notes that local airlines have a larger share of flight frequency in Malaysia, as compared to foreign airlines, which are PAES' only potential pool of customers. In 2021, local airlines accounted for 86.8% of the total flight frequency (2019: 85.2%). As such, PAES would not likely gain a much larger market share post-merger as there is little likelihood that it would be engaged by local airlines.

87. In relation to the Parties' claim on cargo airlines in paragraph 53 above, the Commission agrees with the Parties and finds that although cargo airlines are increasing their capacities and frequencies, such airlines would likely continue to self-handle especially if they already have their own engineering capabilities. The Commission notes that local cargo airlines have the necessary engineering capabilities to service their own airlines. As such, it is less likely that PAES would engage such local cargo airlines.

88. Although foreign airlines could engage PAES, the Commission accepts that foreign airlines can still choose to self-handle and this acts as a countervailing buyer power against PAES. In 2021, ten (10) out of 54 foreign airlines chose to self-handle at KUL. Where foreign airlines do not self-handle, they have other options apart from PAES, such as Dviation and KLMSB, both of which have larger market shares than PAES (subject to such Service Providers having the necessary approvals to carry out line maintenance on the foreign airlines' aircraft). In 2019, PAES had captured [✄] out of 70 airlines operating in KUL (as opposed to its competitors, [✄]).

89. In relation to the PEN market, the Commission finds that although PAES is expected to hold the third largest market share in PEN, PAES' market share is not considered as high. Further, due the strong countervailing buyer power by airlines, the Commission finds that PAES would not have market power in PEN. Additionally, PAES' biggest competitors include Service Providers that service local airlines. The Commission has found that the presence of local airlines presents as a competitive constraint on Service Providers due to their large market shares.

IPH

90. The Commission notes that PAES would have a market share of [✄] should it capture the [✄] business in IPH. The Commission finds that PAES would not have any market power even though it would be the only Service Provider and the only one that would be able to service other airlines that may enter IPH. Despite PAES being the only Service Provider in a duopoly market, the Commission finds that PAES would not be able to exercise any market power against [✄].

91. In relation to [✄], the Commission finds that there is little competitive concern. In the event a transaction with an affiliate, such as [✄], is not made on competitive terms, the decision to enter into such a transaction [✄]. As [✄] has been self-handling its own aircraft at IPH, it can choose to do so should PAES' terms become unfavourable for [✄]. In relation to [✄], it has been noted earlier that [✄] would unlikely engage PAES as it has its own affiliated Service Provider. The Commission therefore finds that PAES would not have any market power in IPH.

92. Furthermore, if the Commission were to accept [✄], PAES would have a smaller market share, which further reduces any competitive impact that may arise out of the Anticipated Merger. In the event where [✄], it would likely carry out self-handling as it has done before in IPH and would not engage PAES. Further, although the Parties predict that [✄], the Parties had not added [✄] as a potential customer that they plan to engage. In

addition, [✂] had operated ATRs in IPH, which aircraft type PAES does not have the capability to service. It is therefore unlikely that PAES would capture [✂] market share.

93. The Commission further notes that IPH is a small market where the frequency in IPH represents only a small percentage of the total flight frequency in Malaysia. The frequency in IPH accounts for only 0.3% of the total frequency in Malaysia in 2021 (2019: 0.5%). Furthermore, the frequency in IPH makes up only 0.7% of the total frequencies in all six (6) Relevant Markets, demonstrating that IPH is not only a small market in Malaysia, but is also a small market compared to all the other Relevant Markets.

6.3 Conclusion

94. Based on the considerations mentioned above, the Commission concludes that the Parties would not gain market power because of the Anticipated Merger in all of the Relevant Markets above. The Commission also finds that there is significant countervailing buyer power from airlines.

7.0 ANALYSING COMPETITIVE EFFECTS ARISING FROM THE MERGER: UNILATERAL EFFECTS[7]

7.1 The Parties' Submission

95. The Parties submit that there would be no unilateral effects that would arise from the Anticipated Merger as PAES has no market power. The Parties submit that PAES would not have the ability to prevent airlines from engaging PAES' competitors. The Parties do note, however, that the Anticipated Merger may foreclose PAES' competitors from servicing airlines belonging to the SQ Group as SQ and TR would engage PAES in all Malaysian airports where PAES operates.

96. Even so, the Parties submit that PAES is not an unavoidable trading partner for airlines in Malaysia. There are several alternative Service Providers that provide the same services, with the only distinguishing factor being the quality of service.

7.2 The Commission's Analysis

97. The Commission analyzes unilateral effects of the Anticipated Merger based on two possibilities, which are:

(a) potential foreclosure of PAES' competitors; and

(b) potential price increase in IPH.

[7] "Unilateral effects refer to the anti-competitive effects of a merger that can result from unilateral actions by a merger party or any other enterprise in a relevant aviation service market". For further details on unilateral effects, refer to Paragraphs 7.3 – 7.8 of the Substantive Merger Guidelines.

98. In relation to the unilateral effect of foreclosure of PAES' competitors, the Commission finds that as PAES has no market power, PAES therefore has no ability to foreclose its competitors from contracting with airlines other than SQ or TR.

(a) In relation to IPH, there are only two (2) airlines operating in IPH, one of which would be PAES' customer, [✄]. As such, it is possible that the IPH market may be foreclosed to PAES' competitors. However, the Commission finds that any foreclosure in IPH is unlikely to cause any detrimental effect on PAES' competitors as the IPH market is small and there are other airports which PAES' competitors may find more profitable to enter into. The likelihood of foreclosure at IPH is further discussed in paragraphs 115 to 121 below, in relation to the Commission's assessment on barriers to entry.

99. In relation to the potential price increase in IPH, the Commission finds that it is unlikely that PAES would increase its prices in IPH. This is since [✄], PAES' potential customer, has been self-handling its own aircraft at IPH and could opt to self-handle if it finds PAES' prices to be too high. Furthermore, the Commission's findings in relation to transactions between PAES and an affiliate in paragraph 91 suggests that competitive concerns would unlikely arise.

100. The Commission also finds that the existence of other Service Providers acts as an effective constraint on any potential unilateral effect. As has been identified, there are other Service Providers in the Relevant Markets, namely MABE, ADE, KLMSB, Malindo Airways and Dviation.

(a) The distinguishing factors between these Service Providers should be the level of service quality (e.g., customer service responsiveness, equipment reliability and track record), capability to service different aircraft types from different jurisdictions, and prices.

(b) It should be noted that Service Providers can only carry out line maintenance services on aircraft where it has the necessary approval from the jurisdiction the aircraft was registered in. As PAES' competitors have approvals from jurisdictions that are different from the ones that PAES has, it is therefore unlikely that there would be any foreclosure by PAES.

101. In relation to capability to service different aircraft types, the Commission finds that nearly all aircraft types that fly into Malaysia can be serviced by more than one Service Provider.

(a) The Commission finds that within the Relevant Markets, Shanghai Airlines had once, in April 2021, operated using the Boeing 737-500 series fitted with CFM International CFM 56 engines. While PAES is the only Service Provider that has the capability to service this aircraft type, Shanghai Airlines did not engage any Service Provider and had carried out self-handling for that flight.

(b) The Commission foresees that the operation of this aircraft type in Malaysia will continue to be infrequent. Additionally, PAES does not have the approval from the Civil Aviation Administration of China ("**CAAC**") to carry out line maintenance on aircraft registered with the CAAC.

102. Hence, the Commission finds that even though PAES is the only Service Provider with the capability to service this aircraft type, it does not give PAES an advantage over its competitors in this respect.

8.0 ANALYSING COMPETITIVE EFFECTS ARISING FROM THE MERGER: COORDINATED EFFECTS[8]

8.1 The Parties' Submission

103. The Parties submit that there are no trade organisations or trade practices that may aid coordination or collusion between PAES and its competitors in Malaysia. As such, the Parties submit that there is low risk for commercially sensitive information to be exchanged between competitors.

104. The Parties also submit that the competitive landscape for line maintenance services is characterised by many different players of various sizes, making it very difficult, if not impossible, for Service Providers to reach a common understanding on the terms of any hypothetical coordination.

105. The Parties further submit that there is no reference point (e.g., on price, output, or market shares) around which the terms of any coordination may be reached. The sector is characterised by the provision of a wide range of services that are not readily comparable between Service Providers, due to the need to tailor services to each airline customer's engineering service needs.

8.2 The Commission's Analysis

106. The Commission agrees with the Parties' submission on the lack of coordinated effects in the Relevant Markets and finds that the Anticipated Merger would not raise any such coordinated effects. In the ground handling sector, pricing and details of services are determined contractually between airline customers and Service Providers. This renders coordination difficult, as such arrangements are confidential, and Service Providers would not be able to monitor the pricing of their competitors.

107. The Commission also finds that the services that may be rendered by Service Providers are heterogenous in nature due to the different Service Providers having different capabilities (e.g., capability to service aircraft from different jurisdictions) and quality of services.

108. For example, [✂] has approval to carry out line maintenance services on aircraft from [✂]. On the other hand, PAES has the relevant approvals from the [✂].

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[8] "Coordinated effects refer to anti-competitive effects of a merger that can result from coordinated actions by the enterprises in a relevant aviation service market. Coordinated effects do not require the existence of an express collusion between the enterprises in a relevant aviation service market". For further details on coordinated effects, refer to Paragraphs 7.9 – 7.14 of the Substantive Merger Guidelines.

109. Such differences in the capability of Service Providers renders the provision of line maintenance services to be heterogenous. Due to the heterogeneity of services, the Commission finds that it would be difficult for Service Providers to reach any coordination.

8.3 Conclusion

110. Based on the considerations above, the Commission finds that the Anticipated Merger would not cause any coordinated effects in the Relevant Markets as the market is such that it is difficult for competitors to monitor each other's prices and the heterogeneity of services makes coordination difficult.

9.0 ANALYSING COMPETITIVE EFFECTS ARISING FROM THE MERGER: BARRIERS TO ENTRY

9.1 The Parties' Submission

111. The Parties submit that there are a few reasons why there are no barriers to entry into the Relevant Markets. Firstly, the Parties submit that key resources such as equipment, manpower, and training are not limited, allowing PAES' competitors to increase capacity or expand their commercial operations quickly in response to a price increase or limitation of services by PAES.

112. The Parties further submit that although some capital investments are required to expand a Service Provider's services, it is not prohibitive. The Parties suggest that Service Providers, including PAES, need not own any essential facilities at any airports. Instead, PAES only owns high-value and specialised engineering tools and equipment at the airports.

113. The Parties also submit that there are low switching costs by airlines as contracts between Service Providers and airlines do not usually contain onerous termination clauses.

114. The Parties further submit that it is not difficult to obtain licences to provide line maintenance services and that an airline can easily enter the market and become a Service Provider itself as long as it obtains a GHL from the Commission and set up its Part-145[9] capabilities for the Approval of Maintenance Organisation from CAAM. As such, the Parties find that PAES would continue to face strong competition as local airlines may become potential competitors, as they can easily enter the market with the increase in volume and capability to support the venture.

9.2 The Commission's Analysis

115. In relation to the Parties' first claim, that key resources needed for expansion are not limited, the Commission disagrees with the Parties and finds that key resources such as equipment, airport premises, manpower and training for MRO are not unlimited. Based

[9] A Part-145 Approval is a company level certification for Service Providers carrying out aircraft maintenance.

on the submission by PAES' competitor, [✄], the Commission notes that there are insufficient office spaces in PEN and LGK airports for Service Providers.

116. However, apart from the availability of office premises, Service Providers do not face high barriers to entry into a new airport. It would not be very cumbersome to expand line maintenance services to other airports, as it is possible to do so with enough capital. Furthermore, existing competitors would not face much difficulty in increasing their headcount. The Commission had enquired whether there is any such difficulty in expanding services to a new airport during its consultation with PAES' competitors and none of the responses raised issues in relation to manpower or headcount.

117. The Commission accepts that capital investments to set up at a new airport are not prohibitive as Service Providers need not invest in essential facilities and need only to invest in manpower, equipment, and rental. The Commission notes the response by [✄] which submits that there would be high capital investments required if it intends to provide a one-stop solution that encompasses technical, ramp, pax, cargo, and terminals handling. While the Commission accepts that this would lead to higher capital expenditure, the Commission finds that this claim relates to the services encompassing those beyond the Service Market defined in this Decision. The Commission is only concerned with the expansion of line maintenance services, which the Commission has found, does not entail prohibitively high capital investments.

118. As to the Parties' claim on low switching costs by airlines, the Commission finds that such switching costs depend on the contractual terms between the Service Providers and airlines. As such, the switching costs incurred by airlines may differ.

(a) However, the Commission notes that for the purpose of this Decision, it would only be necessary to determine the airlines' switching costs from PAES to another Service Provider. The Parties' submission of PAES' list of contracts and contract terms show that PAES' average contract term is [✄]. The Commission notes that as line maintenance contracts could reach up to ten (10) years in the industry, the Commission finds that PAES' contract terms [✄].

(b) Upon perusal of PAES' contract with [✄]. The Commission therefore finds that PAES' contract terms do not cause airlines to incur high switching costs.

119. The Commission also finds that PAES would be able to leverage on SIAEC's network of airline customers and extend its services to more airlines in the Relevant Markets. Even so, PAES' ability to contract with SIAEC's customers post-merger would not create a barrier to entry for other Service Providers in the Relevant Markets due to the above findings by the Commission.

120. The Commission also accepts that airlines can choose to self-handle and that there is no high barrier to entry as airlines do not need to apply for GHLs to self-handle their own fleet. Also, the Commission accepts that airlines may enter the market as GHL holders to obtain economies of scope once their flight frequency grows.

121. In relation to IPH, the Commission notes that there is a possible barrier to entry by other Service Providers as there are currently only two (2) airlines operating in IPH. The Anticipated Merger would result in PAES [✂]. Even so, as mentioned above, IPH is a small market, and the Service Providers in Malaysia can enter other markets that have more airlines. The Commission further reiterates that [✂]. Therefore, any such barrier to entry into the IPH market would not cause any significant detrimental effect to other Service Providers in Malaysia.

9.3 Conclusion

122. Based on the above considerations, the Commission finds that the Anticipated Merger would not cause any barrier to entry in the Relevant Markets. The only likely exception is for the IPH airport, which the Commission notes that even if the Anticipated Merger would cause an increase in the barrier to entry into IPH, the Commission finds that such barrier to entry would be insignificant due to the small market of IPH as compared to other airports in Malaysia.

10.0 ECONOMIC EFFICIENCIES AND SOCIAL BENEFITS

10.1 The Parties' Submission

123. The Parties submit that the Anticipated Merger would result in several economic efficiencies and social benefits such as economies of scale, economies of scope, transfer of knowledge, the introduction of new market segments, and employment opportunities.

Economic efficiencies

124. On economic efficiencies, the Parties submit the following benefits:

(a) Economies of scale;

(i) PAES claims that it is expected to be able to achieve better cost efficiency through adopting the expertise and best practices of SIAEC. The Parties submit that there would be a reduction of the ratio of total cost to revenue and have submitted their estimates for the next ten (10) years post-merger. PAES is expected to achieve gradual and consistent decrease of total cost to revenue. The Parties' projection of revenue, cost, and total cost to revenue ratio are provided in **Appendix IV**.

(ii) The overall productivity improvement of the merger was presented via a decreasing total cost to revenue ratio. This ratio displays a CAGR[10] productivity improvement of about [✂] post-merger.

(b) Economies of scope. The Parties submit that economies of scope may be achieved through SIAEC's support in the following areas:

[10] CAGR refers to the compound annual growth rate.

(i) Staff training (to be performed using resources from SIAEC's training academy);

(ii) Extension and sharing of continuous improvement programmes, digital tools, and technology;

(iii) Support in operations, in relation to engine changes, aircraft accident recovery, critical tasks, and cross deployment of staff between the Parties; and

(iv) Marketing.

(c) Transfer of knowledge;

(i) The Parties claim that SIAEC's investment as a shareholder in PAES is expected to bring to the Relevant Markets in Malaysia, quicker, more innovative solutions, wide technical experience, as well as expertise and knowledge. For example, PAES has identified capability gaps, such as its lack of expertise to service new aircraft types (i.e., Boeing 787 and Airbus 350) and the Parties expect that PAES would be able to fill these gaps through training with SIAEC. The Parties claim that PAES will enjoy competitive training fees when training with SIAEC.

(ii) The Parties also claim that PAES would implement continuous improvement initiatives, like what has been done by SIAEC. SIAEC's annual report shows that SIAEC's line maintenance operations have benefited from the implementation of continuous improvement initiatives such as the utilisation of the Lean methodology to improve the work processes of maintenance work. Its pilot Lean projects on Boeing 787 checks have achieved a 25 – 30% improvement in turnaround times.

(iii) In relation to the implementation of digital tools and technology, the Parties claim that it would [✂]. The Parties claim that the digitalisation of SIAEC's line maintenance operations have brought about annual cost savings of approximately [✂]. The Parties substantiate this claim by submitting their three-year transformation plan, showing plans to implement the cost-saving digital platform.

(d) Introduction of new market segments. The Parties claim that the Anticipated Merger will result in the introduction of new market segments such as:

(i) [✂];

(ii) [✂]; and

(iii) [✂].

SIAEC already has the capability and experience in these market segments, which PAES currently does not possess. The Parties claim that for PAES to build its own capability in these new market segments, a longer time is required, as well as investments and specialised skills.

Social benefits

125. The Parties claim that the increase in the scope of services provided by PAES would increase PAES' customers and volume of work. This would require more manpower, which will create more job opportunities.

126. With the increase in the Parties' customer volume for the new market segments, the Parties anticipate the manhours to increase. The Parties provide that the new market segments would require an estimated number of [✂] additional man-hours in FY 2023/24.

10.2 The Commission's Analysis

Economic efficiencies

127. The Commission accepts the projected revenues presented by the Parties including their assumptions. The Parties project significant increase in revenue from 2024 onwards, which the Commission finds reasonable as this increase relates to the introduction of new services. The information on PAES' planned customer capture in 2024 is provided in **Appendix V**. The Commission also calibrated the Parties' estimates with the IATA forecast data.

(a) IATA had forecasted a base case scenario of global passenger traffic (in terms of revenue passenger kilometers (RPKs)) to return to pre-pandemic levels in 2024, which is in line with the Parties' projections. As such, the Commission finds the significant increase in revenue forecasted by the Parties in 2024 to be reasonable.

128. In relation to the Parties' claim on achieving a CAGR productivity improvement of [✂], the Commission accepts this claim as the post-merger 5-year CAGR is aligned with the CAGR productivity of [✂] of the global MRO market servicing commercial aircraft during the same period (2021 – 2026).[11]

129. In relation to the Parties claims on the economies of scope, the Commission accepts that there would be new market segments introduced as listed in paragraph 124(d) above. In relation to the Parties' claim on SIAEC's support in introducing the new market segments, the Commission finds that only the claims on staff training and the sharing of continuous improvement programmes, digital tools, and technology have been substantiated.

[11] [✂].

(a) In relation to staff training, the Commission accepts that the total cost of providing services may decrease due to the increase in the capabilities of PAES' existing engineers. An engineer with the capability to service more aircraft would be more cost-efficient than hiring an engineer that can only service one type of aircraft.

(b) The Commission notes that training, technical, and engineering expertise support would be provided to PAES as evidenced through [✄] which contains the list of efforts for training and support that will be provided by SIAEC post-merger. Such support includes, among others, [✄].

(c) In relation to the sharing of continuous improvement programmes, digital tools, and technology, the Commission accepts these initiatives as resulting in valuable economic efficiencies that would be introduced into PAES' workstream. SIAEC's pilot Lean projects on Boeing 787 checks, which had achieved a 25-30% improvement in turnaround times would lead to lower likelihood in delays and thus be of benefit to airlines, as well as to passengers. The Commission [✄] where the Parties had provided PAES' [✄], which includes [✄]. The Commission accepts that PAES would be able to leverage on SIAEC's expertise in this area.

130. In relation to the Parties' claim on economies of scope relating to support in operations and marketing, the Parties had not provided any evidence to support these claims. The Commission therefore rejects these claims on the basis that they have not been substantiated.

Social benefits

131. The Commission accepts the Parties' submission for the creation of more job opportunities. The Parties have shown through their business plan, that they intend to introduce new market segments, increase the certification capabilities and engage with more customers. As such, the Commission finds the Parties' projection on the increase in headcount to be reasonable considering the above plans and assumptions.

132. The Commission accepts the Parties' submission where the total man-hours was derived from the following: man-hours per service offered multiplied by the number of transits, aircraft checks, and ancillary services. The Parties had also provided the forecast number of transit to support the figures on the estimated man-hours.

10.3 Conclusion

133. The Commission accepts that the Anticipated Merger would create economic efficiencies and social benefits, which the Commission considers as beneficial for the Malaysian line maintenance market. The economic efficiencies outlined by the Parties would strengthen PAES as a Service Provider and the creation of job opportunities is a benefit which the Commission values, especially in anticipation of the increase in frequency and the return of the civil aviation market to pre-pandemic levels.

11.0 THE COMMISSION'S CONCLUSION OF THE SLC TEST

134. **Market power and countervailing buyer power:** PAES does not have market power in any of the Relevant Markets as PAES' market share is small as compared to that of its competitors. There is also an effective countervailing buyer power that can be exercised by airlines against Service Providers, where airlines can choose to self-handle instead of engaging Service Providers.

135. **Unilateral effects:** the Commission finds that PAES has no ability to foreclose its competitors in any of the Relevant Markets besides IPH. As for IPH, the Commission finds that even if there could be foreclosure of PAES' competitors, IPH is a small market, making up only 0.5% of the total flight frequency in Malaysia in 2019. Any possible foreclosure therefore would have little detrimental effect on PAES' competitors. There would unlikely be any significant price increase by PAES at IPH as there is strong countervailing buyer power by [✂] which can choose to self-handle should it find PAES' terms unfavourable.

136. **Coordinated effects:** the Anticipated Merger would not cause any coordinated effects as the current market environment is such that it renders coordination between competitors difficult. Competitors are unable to monitor each other's prices and the heterogeneity of services makes coordination difficult.

137. **Barriers to entry:** the Commission finds that the Anticipated Merger would not cause any barrier to entry in the Relevant Markets. The only likely exception is for the IPH market, which the Commission notes that should PAES capture one of the only two airlines operating in IPH, it may foreclose the IPH market from PAES' competitors. However, such barrier to entry would be insignificant due to the small market of IPH as compared to other airports in Malaysia.

138. In addition to the Commission's finding on there being no SLC in the Relevant Markets, the Commission also finds that there are significant economic efficiencies and social benefits arising out of the Anticipated Merger. The economic efficiencies and social benefits claimed by the Parties are beneficial for the Malaysian line maintenance market. The claims of economic efficiencies and social benefits accepted by the Commission are:

(a) economies of scale via a decreasing total cost to revenue ratio;

(b) economies of scope to be achieved through SIAEC's support in the areas of staff training and the sharing of information and expertise on continuous improvement programmes, digital tools, and technology;

(c) transfer of knowledge;

(d) the introduction of new market segments; and

(e) the creation of job opportunities.

139. Based on the considerations mentioned above, the Commission concludes that the Anticipated Merger would not cause an SLC in any of the Relevant Markets.

12.0 THE COMMISSION'S DECISION

140. Upon assessing the notification and by virtue of section 55 of Act 771, the Commission concludes that the merger, if carried into effect, would not infringe the prohibition in section 54 of Act 771.

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APPENDIX I
IATA AIRPORT AND AIRLINE CODES

APPENDIX I: IATA AIRPORT AND AIRLINE CODES

Airport Codes

Airport Code	Airport Name
Airports in Malaysia	
BKI	Kota Kinabalu International Airport, Sabah
IPH	Sultan Azlan Shah Airport, Ipoh, Perak
KCH	Kuching International Airport, Sarawak
KUL	Kuala Lumpur International Airport
LGK	Langkawi International Airport, Kedah
PEN	Penang International Airport
SZB	Sultan Abdul Aziz Shah Airport, Subang

Source: AirportIS

Airline Codes

Airline Code	Airline Name
Malaysian Airlines	
AK	AirAsia Berhad
D7	AirAsia X Berhad
FY	FlyFirefly Sdn. Bhd.
MH	Malaysia Airlines Berhad
OD	Batik Air Malaysia Sdn. Bhd. (formerly known as “Malindo Airways Sdn. Bhd.”)
Other Airlines	
[✂]	[✂]
[✂]	[✂]
MI	SilkAir Singapore Private Limited
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
SQ	Singapore Airlines Limited
TR	Scoot Tigerair Pte. Ltd.
[✂]	[✂]

Source: AirportIS

APPENDIX II
ANNUAL FREQUENCY BY TECHNICAL HANDLER FROM 2017 - 2022 IN THE RELEVANT MARKETS

APPENDIX II: ANNUAL FLIGHT FREQUENCY BY TECHNICAL HANDLER FROM 2017 – 2022 IN THE RELEVANT MARKETS

Technical Handler	2017	2018	2019	2020	2021	2022
KUL						
ADE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
MABE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Malindo Airways	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
KLMSB	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (Adhoc)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (Local Carrier)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
PAES	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (FOCA)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Dviation	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
SafeAir	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Other	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total	**199,586**	**207,673**	**208,676**	**72,693**	**37,595**	**134,535**
PEN						
ADE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Firefly	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
MABE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Malindo Airways	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (FOCA)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Other	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
PAES	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (Local Carrier)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
SafeAir	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
KLMSB	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total	**35,862**	**36,801**	**39,245**	**17,482**	**11,019**	**28,188**
BKI						
ADE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
MABE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (Adhoc)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (Local)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
PAES	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Malindo Airways	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Dviation	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Technical Handler	2017	2018	2019	2020	2021	2022
Self (FOCA)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Firefly	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
SafeAir	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Other	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total	**38,953**	**41,388**	**41,323**	**17,956**	**12,786**	**30,187**
KCH						
ADE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
MABE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (Local Carrier)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (Adhoc)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Malindo Airways	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Other	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (FOCA)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Firefly	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total	**25,506**	**28,966**	**27,017**	**13,965**	**8,980**	**25,464**
LGK						
ADE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Malindo Airways	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
MABE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Firefly	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
SafeAir	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
PAES	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total	**12,529**	**11,984**	**12,725**	**6,097**	**4,957**	**12,918**
IPH						
ADE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (FOCA)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Malindo Airways	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Firefly	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total	**1,812**	**2,065**	**2,237**	**543**	**349**	**1,078**

Source: Commission's analysis, AirportIS

APPENDIX III
MARKET SHARES BY TECHNICAL HANDLER FROM 2017 – 2022 IN THE RELEVANT MARKETS

APPENDIX III: MARKET SHARES BY TECHNICAL HANDLER FROM 2017 – 2022 IN THE RELEVANT MARKETS

Technical Handler	2017	2018	2019	2020	2021	2022
KUL						
ADE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
MABE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Malindo Airways	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
KLMSB	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (Adhoc)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (Local Carrier)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
PAES	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (FOCA)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Dviation	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
SafeAir	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Other	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
PEN						
ADE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Firefly	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
MABE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Malindo Airways	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (FOCA)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Other	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
PAES	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (Local Carrier)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
SafeAir	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
KLMSB	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
BKI						
ADE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
MABE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (Adhoc)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (Local)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
PAES	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Malindo Airways	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Dviation	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Technical Handler	2017	2018	2019	2020	2021	2022
Self (FOCA)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Firefly	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
SafeAir	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Other	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
KCH						
ADE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
MABE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (Local Carrier)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (Adhoc)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Malindo Airways	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Other	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (FOCA)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Firefly	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
LGK						
ADE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Malindo Airways	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
MABE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Firefly	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
SafeAir	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
PAES	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
IPH						
ADE	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Self (FOCA)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Malindo Airways	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Firefly	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Commission's analysis, AirportIS

APPENDIX IV
PAES’ PROJECTED REVENUE, COST AND RATIO OF TOTAL COST TO REVENUE

APPENDIX IV: PAES' PROJECTED REVENUE, COST AND RATIO OF TOTAL COST TO REVENUE

Year	Revenue (RM)	Cost (RM)	PBT/(LBT) (RM)	Ratio of total cost to revenue
Year 1	[✂]	[✂]	[✂]	[✂]
Year 2	[✂]	[✂]	[✂]	[✂]
Year 3	[✂]	[✂]	[✂]	[✂]
Year 4	[✂]	[✂]	[✂]	[✂]
Year 5	[✂]	[✂]	[✂]	[✂]
Year 6	[✂]	[✂]	[✂]	[✂]
Year 7	[✂]	[✂]	[✂]	[✂]
Year 8	[✂]	[✂]	[✂]	[✂]
Year 9	[✂]	[✂]	[✂]	[✂]
Year 10	[✂]	[✂]	[✂]	[✂]

Source: Parties' submission dated 16 November 2021

Notes:

1. PBT is Profit Before Tax

2. LBT is Loss Before Tax

APPENDIX V
PAES' CUSTOMER CAPTURE PLAN

APPENDIX V: PAES' CUSTOMER CAPTURE PLAN

Relevant Market	Year 1	Year 2	Year 3	Year 4 – 10
KUL	[✂]	[✂]	[✂]	[✂]
PEN	[✂]	[✂]	[✂]	[✂]
BKI	[✂]	[✂]	[✂]	[✂]
KCH	[✂]	[✂]		[✂]
LGK	[✂]	[✂]		[✂]
Other markets	[✂]	[✂]		

Source: Parties' submission dated 21 January 2022