



सत्यमेव जयते

भारतीय विमानपत्तन आर्थिक विनियामक प्राधिकरण  
Airports Economic Regulatory Authority of India

मैसर्स डब्ल्यूएफएस (बैंगलुरु) प्राइवेट लिमिटेड द्वारा कैपेगोडा अंतर्राष्ट्रीय हवाईअड्डा, बैंगलुरु में प्रदान की जाने वाली कार्गो हैंडलिंग सेवाओं के संबंध में प्रथम नियंत्रण अवधि (वित्त वर्ष 2023-24 से वित्त वर्ष 2027-28) के लिए टैरिफ निर्धारित करने के मामले में/

IN THE MATTER OF  
DETERMINATION OF TARIFF FOR WFS (BENGALURU) PRIVATE LIMITED  
IN RESPECT OF CARGO HANDLING SERVICES  
AT KEMPEGOWDA INTERNATIONAL AIRPORT, BENGALURU  
FOR THE FIRST CONTROL PERIOD  
(FY 2023-24 TO FY 2027-28)

जारी करने की तारीख : 24/04/2023

Date of Issue: 24/April/2023

ऐरा भवन/AERA Building  
प्रशासनिक कॉम्प्लेक्स/Administrative Complex  
सफदरजंग हवाईअड्डा/Safdarjung Airport  
नई दिल्ली/New Delhi – 110003

## **STAKEHOLDERS' COMMENTS**

The Authority has released this Consultation Paper, after considering various assumptions stipulated in the Multi-Year Tariff Proposal ('MYTP') submitted by the WFS (Bengaluru) Private Limited (WFSBPL) in respect of Kempegowda International Airport, Bengaluru. Accordingly, the Authority's proposals on the various aspects of the Tariff determination process have been explained in detail in this Consultation Paper.

Thus, in accordance with the provisions of Section 13(4) of the AERA Act, 2008, the written comments on Consultation Paper No. 01/2023-24 dated 24/04/2023 are invited from the Stakeholders, preferably in electronic form, at the following address:

Director (P&S, Tariff)  
Airports Economic Regulatory Authority of India (AERA),  
AERA Administrative Complex,  
Safdarjung Airports, New Delhi – 110003, India  
Email: [satish.kr@aera.gov.in](mailto:satish.kr@aera.gov.in); [prabhjot.marwah@nic.in](mailto:prabhjot.marwah@nic.in)  
Copy to: [director-ps@aera.gov.in](mailto:director-ps@aera.gov.in); [secretary@aera.gov.in](mailto:secretary@aera.gov.in)

<b>Last Date for submission of Stakeholders' comments</b>	<b>15.05.2023</b>
<b>Last Date for submission of counter comments</b>	<b>22.05.2023</b>

Comments and Counter Comments will be posted on AERA's website [www.aera.gov.in](http://www.aera.gov.in)

For any clarification/information, Director (P&S, Tariff) may be contacted at Telephone No. +91-11-24695048

## **TABLE OF CONTENTS**

CHAPTER 1: INTRODUCTION .....	6
CHAPTER 2: PRINCIPLES FOR DETERMINATION OF TARIFF FOR “AERONAUTICAL SERVICES” .....	8
CHAPTER 3: CARGO VOLUME PROJECTIONS.....	10
CHAPTER 4: CAPITAL EXPENDITURE (CAPEX), REGULATORY ASSET BASE (RAB) AND DEPRECIATION.....	17
CHAPTER 5: OPERATING & MAINTENANCE EXPENDITURE .....	28
CHAPTER 6: AIR FREIGHT STATION (AFS).....	41
CHAPTER 7: AGGREGATE REVENUE REQUIREMENT (ARR) .....	43
CHAPTER 8: REVENUE FROM OPERATIONS, PROFITABILITY & TAXATION .....	47
CHAPTER 9: SUMMARY OF AUTHORITY’S PROPOSALS .....	51
CHAPTER 10: STAKEHOLDERS’ CONSULTATION .....	52
ANNEXURE I: BREAKUP OF CAPEX PROPODESIGN REVIEW REPORT OF CONSULTANT IN RESPECT OF CT2.....	53
ANNEXURE II: DESIGN REVIEW REPORT OF CONSULTANT IN RESPECT OF CT2.....	57
ANNEXURE III: TARIFF RATE CARD SUBMITTED BY WFSBPL FOR THE FIRST CONTROL PERIOD.....	73
ANNEXURE IV: TARIFF RATE CARD PROPOSED BY THE AUTHORITY FOR WFSBPL FOR THE FIRST CONTROL PERIOD.....	80

### List of Tables

Sr. No.	Particulars	Page No.
1	Summary of Shareholding Structure of WFSBPL	6
2	Tariff increase proposed by WFSBPL for the First Control Period	6
3	International Cargo Volume handled by Cargo Terminal Operators at KIA, Bengaluru for the Second Control Period	10
4	Cargo Volume projected by WFSBPL (Cargo to be handled by ISP) for the First Control Period	10
5	International Cargo Volumes handled by KIA, Bengaluru for the period from April, 2022 to February, 2023 and corresponding periods of preceding years from FY 2018-19 to FY 2021-22.	14
6	Cargo volumes proposed to be considered by AERA as against volume projected by WFSBPL for FY 2023-24	15
7	Projected Cargo Volume as per the Authority for WFSBPL for the First Control Period	16
8	Capital Expenditure proposed by WFSBPL for the First Control Period	17
9	Depreciation proposed by WFSBPL for the First Control Period	25
10	Comparison of Depreciation rates of WFSBPL, Delhi vis-a-vis AERA Order 35	26
11	Depreciation computed by AERA for WFSBPL for the First Control Period	26
12	RAB for the First Control Period submitted by WFSBPL	27
13	RAB computed by the Authority for WFSBPL for the First Control Period	27
14	Operating & Maintenance Expenditure projected by WFSBPL for the First Control Period	28
15	IT Cost Estimates (OPEX) for Tariff Year 1 as submitted by WFSBPL	31
16	Projection of Interest on Loan submitted by WFSBPL for the First Control Period	32
17	Repair & Maintenance cost as proposed by the Authority	35
18	IT Cost (OPEX) for WFSBPL proposed by the Authority for the First Control Period	37
19	Estimated breakup of expenses to be incurred by the ISP before commencement of operations as provided by WFSBPL	38
20	OPEX proposed by the Authority in respect of WFSBPL for the First Control Period	40
21	Aggregate Revenue Requirement submitted by WFSBPL for the First Control Period	43
22	FRoR calculated by the Authority in respect of WFSBPL for the First Control Period	44
23	ARR proposed to be considered for WFSBPL by the Authority for the First Control Period	45
24	Revenue Projected for the First Control Period as per WFSBPL before the proposed Tariff increase	47
25	Percentage increase in tariffs proposed by WFSBPL for the First Control Period	47
26	Projected Profitability Statement as per WFSBPL after considering the proposed tariff increase	48
27	Revenue from Regulated Services at prevailing Tariff for the First Control Period as per the Authority	49
28	Tariff increase (%age) proposed by Authority for the First Control Period	49
29	Profitability Statement computed by the Authority in respect of WFSBPL (after proposed Tariff increase) for the First Control Period	49

### **List of Abbreviations**

AERA/ Authority	Airports Economic Regulatory Authority of India
AFS	Air Freight Station
ASRS	Automated Storage and Retrieval System
ARR	Aggregate Revenue Requirement
ATP	Annual Tariff Proposal
ACS	Annual Compliance Statement
BCAS	Bureau of Civil Aviation Security
BUP	Built-Up-Pallet
CAPEX	Capital Expenditure
CAGR	Compounded Annual Growth Rate
CCF	Cold Chain Facility
CGF	Cargo, Ground Handling & Supply of Fuel
CTO	Cargo Terminal Operator
CT2	Cargo Terminal – 2
FRoR	Fair Rate of Return
ISP	Independent Service Provider
KIA	Kempegowda International Airport
MHS	Material Handling System
MYTP	Multi-Year Tariff Proposal
MT	Metric Ton
OPEX	Operating Expenditure
O&M	Operation and Maintenance
PAT	Profit After Tax
PBT	Profit Before Tax
RAB	Regulatory Asset Base
SD	Security Deposit
SPRHA	Service Provider Right Holder Agreement
STP	Sewage Treatment Plant
ULD	Unit Load Device
VRV	Variable Refrigerant Volume
WFSBPL	WFS (Bengaluru) Private Limited
WPI	Wholesale Price Index
YoY	Year on Year

## **CHAPTER 1: INTRODUCTION**

### **1.1 Background**

- 1.1.1 WFS Global SAS has been awarded a concession to operate its first Cargo Terminal in India at Kempegowda International Airport (KIA), Bengaluru. A Joint Venture Agreement was signed by BIAL and WFS Global SAS on 3rd June 2022 and a Special Purpose Vehicle named WFS (Bengaluru) Private Limited (WFSBPL) has been incorporated on 25th July 2022 to provide International Cargo Services at Cargo Terminal 2 and Cold Chain Facility at KIA, Bengaluru.
- 1.1.2 Subsequently, a Service Provider Right Holder Agreement (“SPRHA”) (tripartite agreement) has been executed between BIAL, WFS Global SAS and WFSBPL on 16th December, 2022. As per SPRHA, this concession term is valid for a period of 15 years from date of handover of the existing Cargo Terminal-2, which is further extendable for a period up to 7 years at the discretion of BIAL. As per clause 2 of SPRHA, WFSBPL has a right to design, build, finance, develop, refurbish, operate, manage, maintain and transfer of Cargo Terminal (“CT2”) and the Cold Chain Facility (“CCF”) at KIA, Bengaluru.
- 1.1.3 The shareholding structure of the WFSBPL is given as below:

**Table-1: Summary of Shareholding Structure of WFSBPL**

<b>Name of Shareholder</b>	<b>Equity Holding (%)</b>
WFS Global SAS	74
BIAL	26
<b>TOTAL</b>	<b>100</b>

- 1.1.4 As per SPRHA, WFSBPL is allowed to provide International Cargo Handling Services at KIA, Bengaluru. WFSBPL expects to commence its commercial operations at KIA, Bengaluru on 24<sup>th</sup> May 2023. The new ISP expects to obtain security clearance from Bureau of Civil Aviation Security (BCAS) before commencement of its operations at KIA, Bengaluru.

### **1.2 MYTP Submission:**

- 1.2.1 WFSBPL has submitted Multi Year Tariff Proposal (‘MYTP’) for First Control Period (FY 2023-24 to FY 2027-28) on 21.12.2022, for determination of Tariff in respect of International Cargo Handling Services to be provided at Kempegowda International Airport, Bengaluru.
- 1.2.2 As per the MYTP submission, WFSBPL has proposed the following %age increase in Tariff, over the prevailing rates of AISATS (for FY 2022-23), in respect of its proposed Cargo Handling Services at CT-2 and CCF at KIA, Bengaluru:

**Table-2: Tariff increase proposed by WFSBPL for the First Control Period**

<b>Particulars</b>	<b>FY 23-24</b>	<b>FY 24-25</b>	<b>FY 25-26</b>	<b>FY 26-27</b>	<b>FY 27-28</b>
TSPs (incl. Demurrage Charges)	60.0%	30.0%	30.0%	20.0%	20.0%
Airline Fees	10.0%	4.4%	4.4%	4.4%	4.4%

- 1.2.3 Based on the initial review of MYTP & the Authority's observations, the ISP vide email dated 17.02.2023 submitted the updated MYTP. Further, the ISP, vide email dated 23.03.2023 submitted separate tariff rates for AFS Cargo.
- 1.2.4 The Authority, after having examined the MYTP submission of the WFSBPL in detail and taking into account the additional information/ clarifications furnished by the ISP, during the period from January, 2023 to March, 2023, has issued this Consultation Paper for stakeholders' consultation.

## **CHAPTER 2: PRINCIPLES FOR DETERMINATION OF TARIFF FOR “AERONAUTICAL SERVICES”**

2.1 The Authority, vide Order No. 12/2010-11 dated 10.01.2011 and Direction No. 04/2010-11 issued on 10.01.2011 finalized its approach in the matter of Regulatory Philosophy and Approach in Economic Regulation of the Services provided for Cargo Facility, Ground Handling and Supply of Fuel to the Aircraft at the major airports. Accordingly, the Authority issued the Airports Economic Regulatory Authority of India (Terms and Conditions for Determination of Tariff for Services provided for Cargo Facility, Ground Handling and supply of Fuel to the Aircraft) Guidelines, 2011 (“the Guidelines”).

### **2.2 Stage I: Materiality Assessment:**

In accordance with the above mentioned AERA Guidelines and Directions, the following procedure is adopted for determination of Materiality Index of Regulated Service:

$$\text{Materiality Index (MI}_c\text{)} = \frac{\text{Cargo Volume at Bengaluru Airport}}{\text{Total Cargo Volume at all Major Airports}} \times 100$$

$$\begin{aligned}\text{The Materiality Index for Bengaluru Airport} &= 374062/3228862 \times 100 \\ &= 11.58\%\end{aligned}$$

The percentage share of Cargo Handling for Kempegowda International Airport, Bengaluru for the FY 2019-20 is 11.58%, which is higher than Materiality Index (MI<sub>c</sub>) of 2.5% for the above subject service. Hence, the regulated service is deemed “**Material**” for the First Control Period.

### **2.3 Stage II: Competition Assessment:**

As per clause 5.1 of the above said Guidelines, if Regulated Service is provided at a Major Airport by two or more Service Providers, it shall be deemed “Competitive” at that airport.

It is observed from Form F1 (b) (Competition Assessment) submitted by WFSBPL that M/s Menzies Aviation Bobba (Bangalore) Private Limited (existing CT1 Operator) is rendering Domestic & International Cargo Handling Services at KIA, Bengaluru. However, the concession term of abovesaid incumbent Operator i.e. CT1 Operator is ending on 23.05.2023. For the period beyond 23.05.2023, the Airport Operator has awarded a fresh Concession to M/s Menzies Aviation (Bengaluru) Private Limited (MABPL), for a period of 15 years effective from 24<sup>th</sup> May, 2023. As per the information available with the Authority, the new ISP (MABPL) will provide both domestic & international cargo handling services.

From the foregoing, it is clear that there is a market competition for the proposed Cargo Handling Operations (International) of M/s WFSBPL at Bengaluru airport.

2.4 As per Clause 3.2 (ii) of the Guidelines, wherever the Regulated Service provided is ‘**Material but Competitive**’, the Authority shall determine Tariff(s) for Service Provider(s) based on a ‘**Light Touch Approach**’ for the duration of the Control Period, as per the provisions of Chapter V of the Guidelines. Hence, in the instant proposal, the Authority proposes to determine Tariff of the regulated service under “Light Touch Approach” for the First Control Period.

2.5 It is pertinent to mention that though, the instant case, the Tariff for the ISP is being determined under Light Touch Approach; however, even in light touch approach, the Authority examines all the regulatory building blocks & underlying assumptions/ basis thereof, including projections relating to



revenue, expenses, volumes etc. and other relevant aspects of the case, to ensure that extraordinary gains do not accrue to the Service Provider and that the end Users are not unduly burdened with high Tariff.

2.6 As per clause 11.2 of the CGF Guidelines, 2011, the ATP is required to be submitted in the manner and form provided in AI 8.2 of Appendix-I to the guidelines and should be supported by the following:

- a) Form B and Form 14 (b) (Proposed Tariff Card);
- b) Details of Consultation with Stakeholders;
- c) Evidence of User Agreement(s), if any, between the Service Provider and the User of Regulated Service(s) clearly indicating the Tariff proposed by the Service Provider.

2.7 The Authority notes that WFSBPL has submitted the Annual Tariff Proposal (ATP) along with its MYTP. The ISP conducted stakeholders' consultation meetings on 23<sup>rd</sup> January, 2023 & 24<sup>th</sup> January, 2023 and has submitted minutes of meetings to the Authority vide its email dated 23.03.2023. The representatives of 'The Air Cargo Agents Association of India (ACAAI)', 'Bangalore Custom House Agents Association Limited (BCHAAL)' and the Airport Operator (BIAL) participated in the above referred meetings. As per the minutes of meetings, none of the Stakeholders raised any major concern regarding Tariff proposed by WFSBPL.

2.8 **Authority's Proposal regarding principle for determination of Tariff for the First Control Period**

Based on the material before it and based on its analysis, the Authority considers that the Cargo Handling Service provided by WFSBPL at KIA, Bengaluru is '**Material but Competitive**'. Therefore, the Authority proposes to determine the Tariff for the First Control Period based on '**Light Touch Approach**'.

### **CHAPTER 3: CARGO VOLUME PROJECTIONS**

#### **3.1 WFSBPL's submission on Cargo Volumes Forecast for the First Control Period as part of MYTP.**

3.1.1 WFSBPL has submitted the historical international Cargo Volume handled at KIA, Bengaluru as under:

**Table 3: International Cargo Volume handled by Cargo Terminal Operators at KIA, Bengaluru for the Second Control Period**

(in MT)

Particulars	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23 (up to Nov 22)
CT1 (Menzies Aviation Bobba (Bangalore) Pvt. Ltd.)	100,432	89,864	90,955	120,316	88,228
CT2 (AISATS)	129,235	119,064	98,456	126,547	64,942
<b>Total</b>	<b>2,29,667</b>	<b>2,08,928</b>	<b>1,89,411</b>	<b>2,46,863*</b>	<b>1,53,170</b>

\*Cargo volume doesn't include that handled by the self-handlers & express cargo.

3.1.2 The Cargo Volumes projected by WFSBPL (Cargo to be handled by WFSBPL) for the First Control Period is as below:

**Table 4: Cargo Volume projected by WFSBPL (Cargo to be handled by ISP) for the First Control Period**

(in MT)

Particular	FY 2023-24 (10 months)*	FY 2023-24 (annualized)	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	Total
International Cargo (CT2)	76,019	91,223	99,889	109,378	119,769	131,147	5,36,202
Cold Chain Facility (CCF)	23,637	28,365	31,059	34,010	37,241	40,779	1,66,727
<b>Total</b>	<b>99,656</b>	<b>119,587</b>	<b>130,948</b>	<b>143,388</b>	<b>157,010</b>	<b>171,926</b>	<b>7,02,928</b>

\*Cargo Volume projection for 10 months w.e.f. commercial operations date (May 2023 end).

3.1.3 WFSBPL has submitted the Cargo Volume projections based on the following assumptions:

- Exceptional Cargo volumes in FY 2021-22:** ISP submitted that KIA, Bengaluru recorded its highest-ever cargo tonnage in FY 2021-22, despite challenging circumstances due to multiple Covid waves. Such large increases in cargo turnover during the COVID-19 pandemic were due to one-time increases in the volume driven by various reasons such as a rise in e-commerce activity, adoption of China + 1 strategy and consolidation of cargo from across the region into Bangalore on account of restricted operation of international flights across many airports during the period. International Cargo at KIAB recorded a growth of 31% totaling to 271,988 MT (inclusive of volumes of self-handlers & express cargo) in FY 2021-22 as compared to 207,518 MT (inclusive of volumes of self-handlers & express cargo) handled in FY 2020-21 as tabulated below:

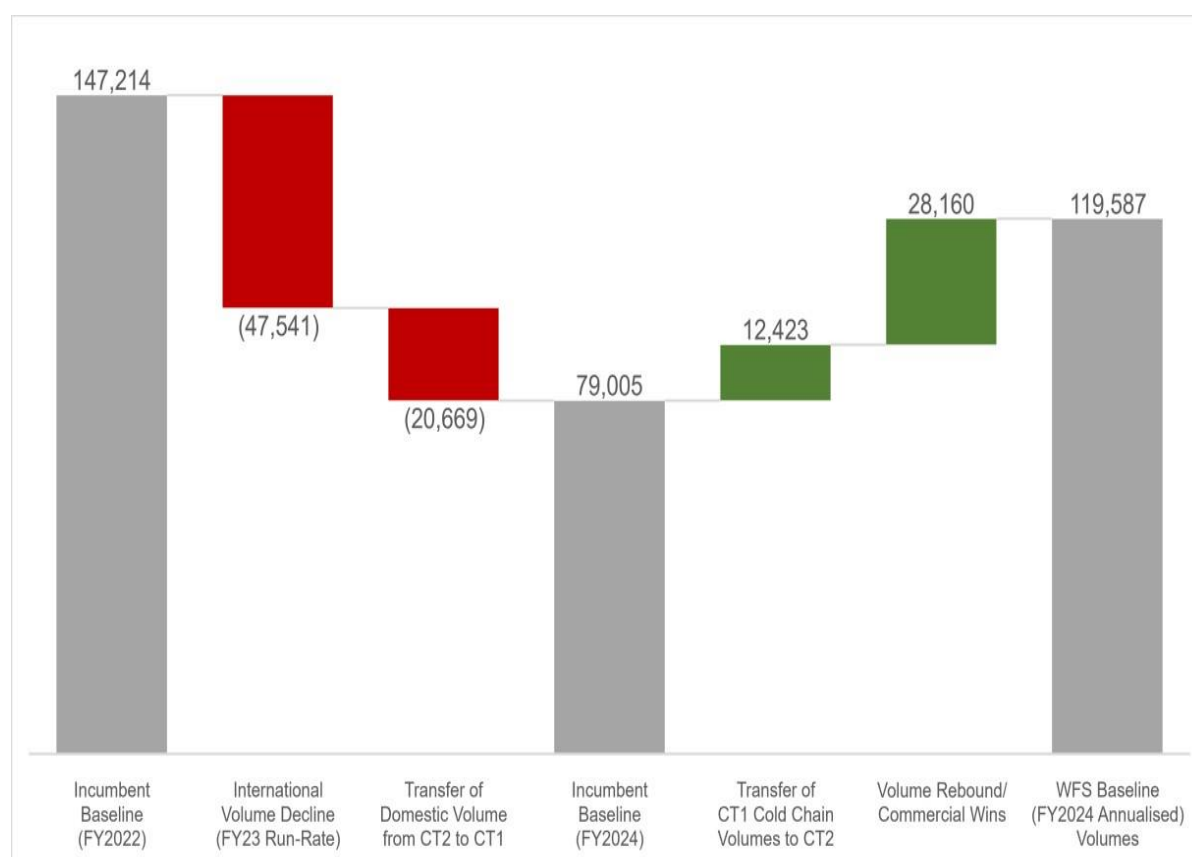
(in MT)

Particulars	FY 2020-21	FY 2021-22
CT1 (Menzies Aviation Bobba (Bangalore) Pvt. Ltd.)	90,955	120,316
CT2 (AISATS)	98,456	126,547
Self-handlers & Express Cargo	18,107	25,125
<b>Total</b>	<b>2,07,518</b>	<b>2,71,988</b>

As per WFSBPL, an increased focus on Make in India schemes and its associated incentives had discouraged imports to a certain extent. Declines can also be attributed to various geopolitical and macroeconomic factors, affecting both domestic as well as international markets. FY 2021-22 cargo volumes reflected a unique business scenario, and as per the ISP, it will take time to get back to volumes witnessed in FY 2021-22. As per WFSBPL, the present operating environment is challenging for all businesses, including air cargo.

- b) WFSBPL submitted the graphical presentation about the various adjustments and assumptions made to incumbent's (AISATS) Cargo Volumes for FY 2021-22 (baseline volume) for projecting Cargo Volumes likely to be handled by ISP during 1<sup>st</sup> Tariff year of the control period i.e. FY 2023-24:

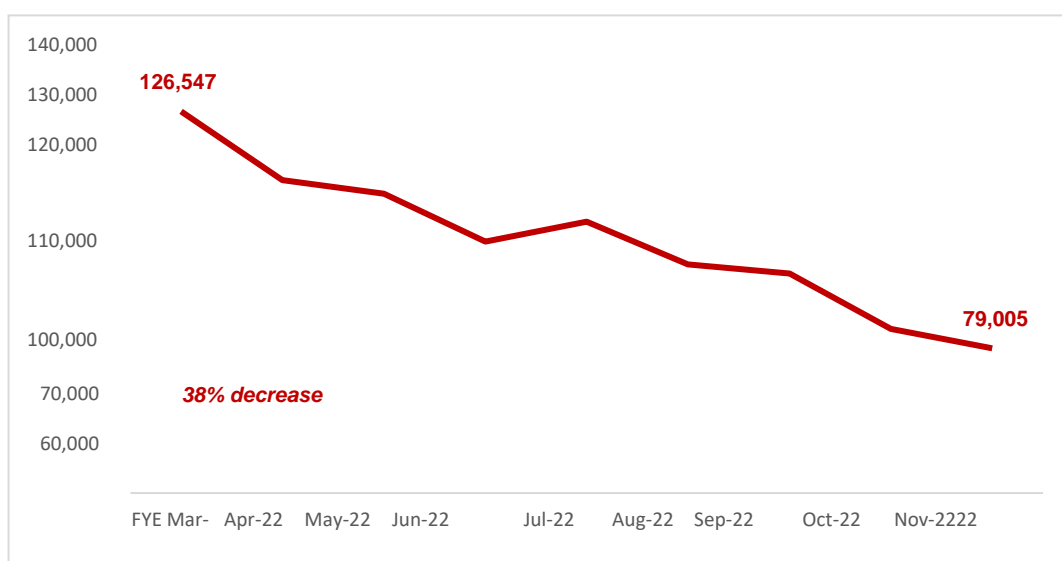
Figure 1: Baseline Tonnage Assumptions by WFSBPL for FY 2023-24



WFSBPL submitted the following justifications for making adjustments in the baseline Volumes pertaining to the incumbent's FY 2021-22 volumes to arrive at projected volumes for the ISP in respect of FY 2023-24:

- As per the ISP, the incumbent (AISATS) recorded a total international tonnage figure of 6,584 MT in November 2022. Accordingly, WFSBPL has worked out the estimated annualized volume around 79005 MT (6584\*12) for FY 2022-23, resulting in decrease in international volumes by 47,541 MT (i.e. 38% on annual basis) when compared to AISATS's international volume of 126,547 MT for FY 2021-22.
- ISP highlighted that contrary to historic growth trends, aggregate International Volumes within CT2 and CCF are declining in FY 2022-23 (April 2022 to November 2022). Year to date graphical depiction of Cargo volumes achieved by present incumbent (CT2), including CCF, during March 22 to November 22 is as under:

Figure 2: YTD volumes achieved by CT2 including CCF during FY 2022-23 (up to Nov22)



- ISP stated that the terms of the new concession stipulate that CT2 will no longer be permitted to physically handle domestic cargo volumes. As such, all domestic volumes will be transferred to CT1 (Menzies Aviation Bobba (Bangalore) Pvt. Ltd.) which will further reduce total tonnage by 20699 MT based on FY 2021-22 domestic volume.
- WFSBPL also highlighted that as per new concession, ISP will physically handle all Cold Chain volumes at KIA, Bengaluru. While this does not restrict CT1 from agreeing commercial terms with customers to handle cold chain cargo, physical handling of cold chain volumes will be subcontracted to the operator of the CCF (WFSBPL). The ISP submitted that this will increase tonnages in the first year by 12423 MT on an annualized basis.
- WFSBPL has enhanced forecast volume figures for FY 2023-24 by including a further uplift of 28,160 MT on an annualized basis, due to combination of factors:
  - partial rebound in Cargo Volumes between today and the commencement date of the concession (24.05.2023).
  - impact from potential commercial wins that WFSBPL is pursuing, underpinned by the offer of improved quality of service and efficiency.

3.1.4 As regard to future growth rates, WFSBPL has analyzed historic volume growth rates for the incumbent operator for this concession, as well as the market, over varying periods as under:

International (CT1, CT2 and CCF) Volume Growth (FY 2013-14 to FY 2021-22)

Particulars	Incumbent Operator	KIAB Total
FY 2013-14	82,176	217,031
FY 2021-22	126,547	354,384
<b>CAGR</b>	<b>5.5%</b>	<b>6.3%</b>

International (CT1, CT2 and CCF) Volume Growth (FY 2013-14 to FY 2018-19)

Particulars	Incumbent Operator	KIAB Total
FY 2013-14	82,176	147,992
FY 2018-19	129,235	229,667
<b>CAGR</b>	<b>9.5%</b>	<b>9.2%</b>

As per WFSBPL, their strategy is to improve quality of service, safety and security at the cargo terminals and through better quality of service, ISP hopes to attract new customers and therefore result in significant volume growth. For the purpose of this submission, WFSBPL has considered an optimistic annual volume growth rate of 9.5% CAGR for international volumes for the period FY 2023-24 to FY 2027-28, in line with the most aggressive pre-COVID volume growth rate observed.

- 3.1.5 WFSBPL assumes that the market declines witnessed thus far in FY 2022-23 will not continue on the current trajectory. ISP has assumed stabilization of current volume levels and return to 9.5% growth rates in cargo volumes for overall Bengaluru international airport as a whole. WFSBPL estimates cargo handling of 119,587 MT by the end of FY 2023-24, resulting in an approximate 50:50 market share split between the two cargo operators in first tariff year (FY 2023-24), representing an increase in CT2 and CCF market share from 36% (based on annualised volume for FY 2022-23) to 50% by the end of FY 2023-24.

Market Growth for Year 1 Projections as submitted by WFSBPL

Particular	Cargo Volume for FY 2022-23 (based on Nov.22 volume)	Market Share %	Growth Rate %	Projection for FY2023-24	Market Share %
CT1 Operator	139,388	64%	(14.2%)	119,553	50%
CT2 and CCF Operator	79,005	36%	51.4%	119,587	50%
<b>Total</b>	<b>218,393</b>		<b>9.5%</b>	<b>239,140</b>	

3.2 Authority's Examination on Cargo Volumes projections in respect of WFSBPL for the First Control Period:

- 3.2.1 The Authority notes from the ISP's submission that actual International Cargo Volumes handled by CT2 terminal for the period April 2022 to November 2022 was 64,942 MT (refer Table 3). The Authority also notes that ISP has considered the international cargo volumes for the month of November 2022 in respect of present incumbent (CT2 operator) for estimation of annualized volume for the FY 2022-23, resulting into 38% decrease in volumes when compared to FY 2021-22.
- 3.2.2 The Authority observes that the ISP, while arriving at annualized volumes for FY 2021-22 (baseline volume considered by the ISP for projecting Cargo Volumes for the Control Period), has relied solely

on cargo volumes transacted for the month of November, 2022 and ignored actual cargo volumes handled by present incumbent for the period from April to October, 2022.

- 3.2.3 In this regard, the Authority referred to the AAI statistics in respect of international cargo volume handled at KIA, Bengaluru for FY 2022-23 (up to February, 2023) as under:

**Table 5: International Cargo Volumes handled by KIA, Bengaluru for the period from April, 2022 to February, 2023 and corresponding periods of preceding years from FY 2018-19 to FY 2021-22.**

Particulars	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
April	19284	19610	7232	21743	20416
May	20877	19968	11957	20926	21492
June	22187	18908	31618	20666	21229
July	22469	19182	16303	22758	23215
August	21682	18312	17139	24316	22042
September	19868	18268	19123	24440	22664
October	20086	19197	19620	25657	20843
November	18201	18732	19248	22590	20770
December	19259	18896	20425	22336	21639
January	18363	18196	19259	21710	19439
February	18782	19063	19060	20981	19134
<b>Total April to February</b>	<b>221058</b>	<b>208332</b>	<b>200984</b>	<b>248123</b>	<b>232883</b>

The Authority observes from the above table that International Cargo Volumes from April 2022 to February 2023 has surpassed the corresponding volumes in preceding pre-covid years (FY 2018-19 & FY 2019-20). In fact, cargo volumes for the period from April, 2022 to February, 2023 has increased by 12% as compared to corresponding period of FY 2019-20 (pre-Covid).

- 3.2.4 In view of the above, the Authority sought the updated figures of cargo volume handled by the incumbent operator (AISATS) for the period from April, 2022 to February, 2023 (as against the actual figures submitted earlier by the ISP for the period from Apr, 22 to Nov, 22). WFSBPL, vide email dated 04.04.2023 provided actual cargo volume handled by incumbent operator from December, 2022 to February, 2023 as tabulated below:

Period	Actual International Cargo Volume handled by the incumbent operator (AISATS) (in MT)
April, 2022 to November, 2022	64942
December, 2022	7194
January, 2023	6639
February, 2023	6475
<b>Total (April, 2022 to February, 2023)</b>	<b>85250</b>

- 3.2.5 Based on the above, the Authority has computed the annualized baseline international cargo volume for FY 2022-23 in respect of ISP (after considering the actual volume handled in February, 2023 i.e. 6475 MT for the month of March, 2023) totaling to 91725 MT.
- 3.2.6 The Authority notes that WFSBPL has made following adjustments to the CT2's actual cargo volumes for FY 2021-22 for working out estimated cargo volume for the FY 2023-24 (first tariff year):

- Excluded 20669 MT as all domestic volumes will be transferred to CT1.
- Included 12423 MT as WFSBPL will physically handle all Cold Chain related cargo volumes at KIA, Bengaluru.
- Further increase of 28,160 MT in cargo volumes has been considered by the ISP due to combination of factors:
  - (i) assumed natural growth rate in cargo volumes from December, 2022 up to commercial operations date (24.05.2023).
  - (ii) winning potential new clients on the ground of improved quality of service and efficiency.

The Authority observes that ISP has estimated the annual growth rate of 9.5% p.a. in the Cargo volumes for FY 2024-25 to FY 2027-28.

Computation of cargo volume projection for FY 2023-24, as per the AERA vis-à-vis volumes projected by WFSBPL is given as under:

**Table 6: Cargo volumes proposed to be considered by AERA as against volume projected by WFSBPL for FY 2023-24**

WFSBPL		AERA	
Cargo Volume			
Particulars	in MT	Particulars	in MT
Actual Cargo volumes for FY 2021-22 in respect of present incumbent (A)	147214	Actual Cargo volumes for FY 2021-22 in respect of present incumbent	147214
Adjustment made to arrive at projected figure for FY 2022-23			
For estimating annualized international cargo volumes for FY 22-23, ISP has considered a decrease of 38% in international cargo volumes for FY 22-23 (based on actual figures for the month of November, 22), as compared to actual international cargo volume handled by present incumbent (AISATS) for FY 21-22 i.e. 126547 MT.	(-) 47540	For estimating annualized international cargo volumes for FY 22-23 (baseline volume), the Authority considered decrease of 28% in international cargo volumes in FY 22-23 (based on actual international cargo volume handled by the incumbent (AISATS) for the period April, 22 to February, 23 & extrapolating cargo volumes for Mar, 23), as compared to actual international cargo volumes handled by AISATS in FY 21-22 i.e. 126547 MT.	(-) 34820
Excluded domestic cargo volumes, as the domestic cargo terminal not to be operated by ISP.	(-) 20669	Excluded domestic volumes, as the domestic cargo terminal not to be operated by ISP.	(-) 20669
Net Annualised Volume for FY 2022-23	79005	Net Annualised Volume for FY 2022-23	91725
Further Adjustments made to arrive at projected figure for FY 2023-24			
1. Included Cold Chain related volumes	12423	1. Included Cold Chain related volumes	12423
2. Considered increase in cargo volumes due to natural growth in volumes (Dec, 2022 to May, 2023) and impact of potential new customers.	28160	2. Considered increase in cargo volumes due to natural growth in volumes (Dec, 2022 to May, 2023) and impact of potential new customers.	28160
Total estimated baselines Volumes for FY 2023-24.	119587	Total estimated baselines Volumes for FY 2023-24.	132308

3.2.7 The Authority, taking cognizance of actual cargo volumes achieved by present incumbent for FY 2021-22 (147214 MT) and after making above adjustments, estimates annualized cargo volumes for FY 2023-24 (first tariff year) for ISP at 132308 MT.

- 3.2.8 The Authority, from Table 4 notes that the ISP has considered the international cargo volumes pertaining to Cargo Terminal 2 (CT2) and Cold Chain Facility in the ratio of 76:24 for FY 2023-24. In view of the above, the Authority proposes to maintain same ratio in the cargo volumes pertaining to CT2 and CCF as indicated above, for the remaining tariff years of the Control Period.
- 3.2.9 The Authority proposes to consider annual growth rate @9.5% in international cargo in respect of International Cargo Terminal (CT2) and Cold Chain Facility (CCF) for the remaining tariff years of the Control Period (FY 2024-25 onwards), as considered by the WFSBPL.
- 3.2.10 In view of the foregoing, the Authority proposes to consider cargo volumes projection for WFSBPL for the First Control Period as per table given below:

**Table 7: Projected Cargo Volume as per the Authority for WFSBPL for the First Control Period**

(in MT)

<b>Particular (MT)</b>	<b>FY 2023-24* (10 months)</b>	<b>FY 2023-24 (annualized)</b>	<b>FY 2024-25</b>	<b>FY 2025-26</b>	<b>FY 2026-27</b>	<b>FY 2027-28</b>	<b>Total</b>
International Cargo (CT2)	83,794	1,00,554	1,10,140	1,20,602	1,32,059	1,44,605	<b>5,91,200</b>
Cold Chain Facility Cargo (CCF)	26,461	31,754	34,246	37,500	41,063	44,964	<b>1,84,234</b>
<b>Total</b>	<b>1,10,255</b>	<b>1,32,308</b>	<b>1,44,386</b>	<b>1,58,102</b>	<b>1,73,122</b>	<b>1,89,569</b>	<b>7,75,434</b>

*\*10 months Cargo Volume considered due to partial operations during the year.*

### 3.3 **Authority's Proposal regarding Cargo Volume Projection in respect of WFSBPL for the First Control Period:**

Based on the material before it and based on its analysis, the Authority proposes to consider the Cargo Volume for the First Control Period for WFSBPL as per Table 7.



## **CHAPTER 4: CAPITAL EXPENDITURE (CAPEX), REGULATORY ASSET BASE (RAB) AND DEPRECIATION**

### **4.1 WFSBPL submission on Capital Expenditure for the First Control Period**

4.1.1 WFSBPL has projected a total Capital Expenditure (CAPEX) of ₹ 144.97 crores during the First Control Period for development of Cargo Infrastructure and procurement of Cargo Handling Equipment. The details of Capital Expenditure proposed by WFSBPL for First Control Period are given below:

**Table 8: Capital Expenditure proposed by WFSBPL for the First Control Period**

(₹ in crores)

<b>Particulars</b>	<b>FY 2023-24</b>	<b>FY 2024-25</b>	<b>FY 2025-26</b>	<b>FY 2026-27</b>	<b>FY 2027-28</b>	<b>Total</b>
Cargo Complex	100.96	-	-	-	-	100.96
Cargo Equipment	21.68	1.06	1.43	1.80	2.28	28.25
Computers	5.94	-	-	-	-	5.94
Fixtures	9.83	-	-	-	-	9.83
<b>Total</b>	<b>138.41</b>	<b>1.06</b>	<b>1.43</b>	<b>1.80</b>	<b>2.28</b>	<b>144.97</b>

4.1.2 Out of total CAPEX of ₹ 144.97 crores proposed by the ISP for the First Control Period, major portion (₹ 138.41 crores) of capital expenditure is earmarked for capital works/ schemes for restoring and refurbishment of cargo infrastructure and services at Cargo Terminal 2 and Cold Chain Facility, along with procurement of cargo handling equipment.

4.1.3 WFSBPL submitted the following justifications/ requirements for major capital works proposed during the First Control Period:

#### **(I) Cargo Terminal 2 (CT2) Refurbishment Plan:**

WFSBPL submitted CT2 was constructed with Material Handling System (MHS) to have a handling capacity of 210,000 MT and much of this handling capacity has been eroded due to structural defects and disrepair, resulting in a current annual capacity of approximately 120,000 MT only. The CT2 improvements will focus on rehabilitation and repair of existing infrastructure that will restore handling capacity to 210,000 MT and further increase that capacity to 250,000 MT, as required under the terms of the JV2 concession. Break up of proposed CAPEX in respect of CT2 including Refurbishment of CT2 and at an estimated cost of Rs. 109.47 cr. is given below:

<b>Particulars</b>	<b>Rs. in Crores</b>
Restoration/ Strengthening of basic building structure (Shell)	66.97
Procurement of Material Handling System (Cargo Handling)	28.31
Other CAPEX includes: MHS IT System Hard &Software including cam recorders, Monitors, CCTVs, Control System, PLC, Other IT Infrastructure, Office equipment, Design and Project management and other Pre-Operative Capital Expenditure.	14.19
<b>Total</b>	<b>109.47</b>

Further, the line-item wise details of proposed CAPEX in respect of CT2 amounting to ₹ 109.47 crores is placed at **Annexure-I**.

The highlights of Refurbishment Plan in respect of CT2:

- a) Structure (Shell):** WFSBPL stated that CT2 was constructed in 2007/ 2008. As per the ISP, the floors are cracked, uneven and requires to be rehabilitated and reinforced. The Automated Storage and Retrieval System (ASRS) and Workstations have pits to accommodate lifting mechanisms. However, both the ASRS pit and Workstation pit have leakages.

The ISP submitted that the structural improvements will focus on the following aspects:

- i. the rehabilitation of the foundation and floors to accommodate existing and planned MHS at design capacity,
- ii. the enhancement of connectivity between the ground floor and basement, and
- iii. the realignment of the majority of import flows to the basement from the ground floor.

- b) Systems:** WFSBPL in its submission stated that the office and terrace areas of CT2 are air conditioned with variable refrigerant volume (“VRV”) systems. These systems installed in 2008 have reached the end of their useful life. The basement ventilation has been decommissioned and is in poor condition rendering portions of the basement unacceptable for employee occupancy.

WFSBPL submitted that though the transformer, generator, and main panel are in functional condition and can last another 10 to 12 years; however, the remaining elements of the system are in poor condition. Also, the electrical system does not have sufficient capacity to meet the demands of the CT2 improvements, including the contractually required replacement of the forklift fleet with electric vehicles, and will have to be upgraded. Refurbishment will include installation of Enhanced (LED) lighting in basement and streetlights, replacement, modification, refurbishment and overhauling of existing panels, replacement of distribution boards and point wiring, replacement of lighting protection system, refurbishment of earth pits for electrical system with new earth electrode, Replacement of all three cold storage room refrigeration units, Replacement of passenger lift, goods lift etc.

ISP further stated that the CT2 has eight toilets, all of which are in very poor condition and must be replaced. The Sewage Treatment Plant (STP) similarly is in poor condition and needs repair.

Further, as per the ISP, much of the fire protection system is not in alignment with regulatory requirements and will need to be upgraded or replaced. In addition to fire protection devices, CT2 is lacking a smoke extraction system installed in the basement to meet regulatory requirements.

- c) Material Handling System (MHS) Infrastructure Improvement:** ISP stated that CT2 has a four-line building configuration of ULD storage, build up/ breakdown (“BU/BD”), bulk storage and dock area. The MHS was commissioned in 2009. Most of the MHS is unable to be used due to structural defects as under:

- The pallet container handling system (“PCHS”) storage structure is in functional condition. However, the mechanical, electrical and IT aspects of the system are in poor condition with replacements necessary for (a) ETV and airside conveyor electrical / mechanical components, (b) PCHS software and (c) ETV guide rails.

- Shell column and footing structural defects supporting the PCHS has rendered the PCHS incapable of operating at design capacity. The structural defects, rail failure, and component conditions have resulted in the PCHS having a throughput that is 50% of its expected capability.
- CT2 BU/BD has four workstations connected to PCHS. The workstations are in a functional condition but (a) the scissor lifts must be refurbished and (b) control panels must be replaced.
- The ASRS storage structure is in functional condition, but many storage bins must be refurbished and partly replaced. The stacker crane ropes were replaced in 2017 and the chains of all input and output conveyors were replaced in 2020. Regardless, the stacker cranes have mechanical, electrical and IT aspects that are in poor condition with replacements necessary as to motors, gearboxes, wire, sensors, PLC software, control panels, and communication cables. Further, the ASRS software currently functions as standalone system and must be connected to the cargo management systems (CMS).
- The Automated Storage and Retrieval System (ASRS) currently is offline due to IT issues and rail failure. Shell column and footing structural defects has rendered the ASRS incapable of operating at design capacity.
- The Import VNA storage structure is in functional condition but Import VNA High Reach Forklifts have batteries that must be replaced. The Import VNA software must be updated for connection to the CMS.

**d) Realignment of Flow:**

- WFSBPL submitted that at the time of handover of CT2, current domestic flows will be assigned to the domestic cargo terminal (“CTD”) and international cool flows will be assigned to CCF such that CT2 will focus only on international dry flows.
- The ground floor of CT2 will include the entire export operation and part of the import operation inclusive of the inbound unit dolly dock interface, handling of Out of Gauge and 20ft units, and loading of 40ft truck docks.
- The basement will handle the remainder of the import operation inclusive of ULD breakdown, ASRS shipment storage, bulk storage, VAL strong room, mini-shipment storage, import detained cargo, Customs examination area and a large delivery area.
- CT2 cold rooms will be demolished.

As per ISP, after successful implementation of CT2 Refurbishment Plan, there will be major improvements in CT2 infrastructure & MHS resulting in enhancements in cargo handling processes as indicated below:

<i>Sub process</i>	<i>Equipment or Area</i>	<i>Current</i>	<i>Optimized</i>
<i>ULD Storage</i>	<i>10ft Storage Positions</i>	<i>120</i>	<i>141</i>
<i>BU/BD</i>	<i>Workstations or equivalent</i>	<i>19</i>	<i>29</i>
<i>Bulk Storage</i>	<i>Bulk Racking IHP Positions</i>	<i>3,660</i>	<i>3,538</i>
<i>Truck Docks</i>	<i>Number of Docks</i>	<i>32</i>	<i>32</i>
<i>Truck Docks</i>	<i>Number of X-Rays</i>	<i>3</i>	<i>6</i>
<i>Truck Docks</i>	<i>Acceptance Area (SQF)</i>	<i>12,917</i>	<i>19,978</i>
<i>Truck Docks</i>	<i>Delivery Area (SQF)</i>	<i>11,780</i>	<i>10,358</i>

**(II) Cold Chain Facility (CCF) Refurbishment and Expansion Plan:** WFSBPL in its MYTP submission stated that the CCF was constructed in 2016. The CCF is a pre-engineered building and includes a ground floor and two partial mezzanine floors. As per the ISP, while the stated capacity of CCF is 40,000 MT, due to poor maintenance, the actual capacity is significantly lower and requires significant refurbishments and enhancements to restore the capacity to 40,000 MT and then further enhance its capacity to 80,000 MT. At the time of handover of CCF, current domestic flows will be assigned to the Domestic Cargo Terminal and the physical handling of cool flows will be assigned to the CCF. The ISP informed that the CCF has suffered deterioration in its mechanical, electrical, and plumbing (MEP) building systems and material handling system, constricting infrastructure utilization. As per the ISP, CCF cool system is further compromised by excessive clear height within parts of the facility, causing an excessive draw on power to cool unused space.

Major highlights of Refurbishment and Expansion Plan of CCF at an estimated cost of Rs. 28.92 crores proposed by the ISP are as under:

- a) **Structure:** WFSBPL in its submission stated that floor and surfaces are in a serviceable condition and able to support the existing MHS at existing design requirements. The columns are in adequate condition to meet existing MHS design requirements but will need to be reinforced to meet anticipated MHS design requirements. In addition, the building height in the acceptance/delivery area and build-up/break down area is not efficient causing an excessive drain on power to cool unused space.
- b) **Systems:** ISP informed that while the Chiller, Pumps, Cooling Tower, AHU, and Cold Storage Units are in serviceable condition; however, the HVAC Panels, Pump Foundation, Actuators and various gauges and valves need to be replaced. Air Handling Unit (AHU) duct cleaning is required once in five years, but as per ISP, AHU duct cleaning has not been done yet and same needs to be implemented. The MEP building systems will be overhauled. The Sewage Treatment Plant needs repair and upgradation. Lighting Protection system (LPS) to be replaced as per relevant IS/ IEC guidelines. Lighting in basement needs to be enhanced. Firefighting system to be upgraded. All the existing pumps to be replaced with higher capacity pumps. Underground water capacity to be enhanced to 300KLD.
- c) **Expansion:** WFSBPL further stated that the CCF will be extended by approximately 125 ft. to the west by construction of a CCF module to handle import perishable, import pharma, and export pharma. Accordingly, with expansion, various equipment i.e. Truck docks, workstations, X-ray machines, BU/BD will required to be procured.

As per the ISP, upon successful completion of refurbishment and expansion plan in respect of CCF, there will be enhancements in cargo handling processes. The CCF design evolution focuses on rehabilitation, flow realignment, and product segregation while increasing capacity from 40,000 MT to 80,000 MT as indicated below:

<i>Sub Process</i>	<i>Equipment or Area</i>	<i>Current</i>	<i>Improved</i>
<i>Unit Storage</i>	<i>10ft Storage Positions</i>	<i>40</i>	<i>40</i>
<i>BU/BD</i>	<i>Workstations or equivalent</i>	<i>10</i>	<i>15</i>
<i>Bulk Storage</i>	<i>Bulk Racking IHP Positions</i>	<i>68</i>	<i>80</i>
<i>Truck Docks</i>	<i>Number of Docks</i>	<i>5</i>	<i>10</i>
<i>Truck Docks</i>	<i>Number of X-Rays</i>	<i>2</i>	<i>4</i>
<i>Truck Docks</i>	<i>Acceptance Area (SQF)</i>	<i>1,341</i>	<i>7,792</i>
<i>Truck Docks</i>	<i>Delivery Area (SQF)</i>	<i>1,055</i>	<i>2,236</i>

The line-item wise details of refurbishment and expansion of CCF amounting to ₹ 28.93 crores proposed by the ISP is placed at **Annexure-I**.

**(III) Maintenance Capex:** Apart from major CAPEX on CT2 and CCF, WFSBPL anticipates miscellaneous capex on YoY basis costing around ₹ 1 to 2 crores from tariff year 2 to 5 of the First Control Period.

#### 4.2 Authority's Examination on Additions to RAB

4.2.1 The Authority notes that WFSBPL has proposed major capex on restoration & refurbishment of Cargo Terminal 2 and refurbishment & expansion of Cold Chain Facility. In this regard, the Authority observes that as per the scope of work (clause 2.1.1 and 2.1.2) of Service Provider Right Holder Agreement (reproduced below), ISP is mandated to operate CT2 with international cargo handling capacity of not less than 2,50,000 MT per annum. In respect of CCF, ISP is required to operate the cold chain facility with not less than 40,000 MT and further enhance its annual cargo handling capacity to 80,000 MT.

##### Clause 2.1.1. of SPRHA in respect of International Cargo Terminal 2:

- (i) *Design, build, finance, develop, and undertake refurbishment activities of the Existing Cargo Terminal 2 as prescribed by BIAL which lead to creation of an additional capacity of not less than 40,000 MT (forty thousand metric tons) per annum. For the avoidance of doubt, the International Cargo Terminal 2 shall have a total handling capacity of not less than 250,000 MT (two hundred and fifty thousand metric tons) per annum; and*
- (ii) *Operate, maintain, manage and transfer the Existing Cargo Terminal 2 and the expanded facility as set out in Clause 2.1.1 (i) above.*

##### Clause 2.1.2. of SPRHA in respect of Cold Chain Facility:

- (i) *Design, build, finance, develop, Operate, manage, maintain, and transfer the expanded Existing Cold Chain Facility by not less than 40,000 MT (forty thousand metric tons) ("**Expanded Cold Chain Facility**") in accordance with Clause 9.5 (Alteration, Expansion and Upgradation of Cargo Terminal 2);*
- (ii) *Operate, maintain, manage and transfer the Cold Chain Facility; and*
- (iii) *Undertake refurbishment activities as prescribed by BIAL within the Existing Cold Chain Facility.*

4.2.2 WFSBPL, in order to comply with the obligations entrusted on it under the aforesaid clauses of SPRHA, has engaged the consultants namely "Structwel Designers and Consultants Pvt. Limited" & "Realog Consulting GMBH" to carry out the structural analysis of the CT2 in relation to its design capacity for revised relevant MHS and Indian Codes. The major conclusions in the report dated 13.12.2022 submitted by aforesaid consultants is given below:

*The structure is unsafe for its intended MHS Design load. The fact that it is still standing may be attributed to the combined effects of the following: -*

- (i) *It has not been subjected to the maximum loading as per Design MHS capacity.*
- (ii) *It has not been subjected to an earthquake as per IS code.*
- (iii) *The structure is eating into the design factor of safety left in design as per IS code.*

The consultants also recommended remedial techniques as under:

*“There are several strengthening techniques which may be applicable to retrofit the Structure. Structwel proposes the following measures:*

- a) Foundation strengthening is challenging and can be done with inserting piles to reduce the load on the current footings.*
- b) Column strengthening can be done with fibre wrapping or RCC jacketing/ steel jacketing.*
- c) Beam strengthening can be done with steel plate flitching.”*

The design review report of the Consultant regarding structural strength etc. in respect of CT2 is placed at Annexure-II.

4.2.3 The Authority has examined the details of proposed CAPEX in respect of CT2 submitted by the ISP (**Annexure-I**) and finds that the estimated costs of some items under infrastructure facilities construction (*Foundation strengthening area of Proposed Failure Footings - ₹11.76 crores, Super Structure Strengthening - ₹26.32 crores, Tremix flooring with Nominal Steel - ₹4.26 crores & MEP - Electrical – ₹5.89 crores*) apparently are on the higher side. The Authority, accordingly, sought justification/ cost basis for these items. WFSBPL, vide email dated 04.04.2023 submitted its response/ justification along with detailed considerations behind the submitted estimates of the aforesaid cost items as under:

- a. Foundation strengthening area of Proposed Failure Footings (estimated cost ₹11.76 crores) - The specific remedial work includes boring, providing and installation bored cast-in-situ reinforced cement concrete piles of grade M-30 of specified diameter and length below the pile cap, to carry a safe working load, excluding the cost of steel reinforcement but including the cost of boring with polymer solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. by percussion drilling using Direct mud circulation (DMC) or Bailer and chisel technique by tripod and mechanical Winch Machine all complete, including removal of excavated earth with all its lifts and leads.
- b. Super Structure Strengthening (estimated cost ₹26.32 crores) – As per the ISP, superstructure remediation focuses on:
  - Column strengthening with jacketing
  - Beam strengthening with flitching
  - Slab strengthening with steel frames
  - Slab strengthening with fiber sheets/ laminates
- c. Tremix flooring with Nominal Steel (estimated cost ₹4.26 crores) – WFSBPL mentioned that CT2 floors are cracked, chipped and uneven. They will undergo even more damage in the basement when implementing the micro piling and other structural strengthening measures. The CT ground floor surface will be prepared and a coating of 4 mm thick PU self-smoothing flooring be applied.
- d. MEP – Electrical (estimated cost ₹5.89 crores) - The CT2/CCF electrical system emanates from the CT2 main electrical room. The premises has two nos. DRY type transformer of 1000 KVA capacity feeding CT-2 terminal (Transformer-1). The main electrical panel is situated on basement floor and supplies main power to both CT2 and CCF. In event of main power supply failure, a separate generator set of 750 KVA capacity is available inside electrical room. Electrical power is fed through express feeder and metering location at domestic gate no.2.

- 4.2.4 The ISP vide email dated 31.03.2023 further submitted that they propose to undertake additional works with a CAPEX of around ₹ 8 to 9 crores on the construction of Airside canopy of 5100 sq. mtr. in area and other related works. As per the ISP, this canopy is required to be constructed in order to enhance storage and safety of cargo packages on Airside.

As regard to CAPEX for additional works, WFSBPL submitted that they would endeavor to explore possible avenues of value engineering, evaluation of alternatives etc. on super structure strengthening and other works (to ensure cost saving for additional works i.e. Airside Canopy) so that overall CAPEX stays within the CAPEX proposal submitted to the Authority and hence, does not propose to submit an additional cost outlay to the Authority.

- 4.2.5 The Authority observes from the ISP's submission that the additional airside works (construction of canopy) are being proposed to enhance storage and safety of cargo packages on airside. In view of the above, the Authority proposes to consider additional works relating to the construction of canopy on airside, which is within the overall CAPEX proposed for the First Control Period, amounting to ₹ 144.97 crores.

- 4.2.6 The Authority notes from the consultant's report & WFSBPL's submission that the present cargo terminal (CT2) has structural weaknesses and lacks required strength to support MHS as per its designed cargo handling capacity. The cargo infrastructure at CT2 as per ISP requires restoration and refurbishment to restore its designed cargo handling capacity.

- 4.2.7 The Authority further observes from WFSBPL submission that apart from major restoration/refurbishment in civil structure, the allied material handling equipment and other systems, including air-conditioning, improvement in electrical system & provision of LED lightings, restoration of ASRS functionality and replacement of existing forklift fleet with electric vehicles (contractually mandated) is required to be accomplished to restore CT2's designed cargo handling capacity.

The ISP further highlighted the poor condition of the eight toilets in the CT2 building which requires major renovation along with major repairs of STP. In order to comply with SPRHA and to address the cargo volume bottleneck, WFSBPL requires to make sufficient investment to enhance the present cargo handling capacity of CT2.

In view of the above, considering the age of Cargo Terminal which was constructed in 2007/ 2008 and its present deteriorated condition due to normal wear and tear over the years etc.; the Authority feels that the proposed refurbishment and restoration of CT2, including restoration and enhancement of MHS and other systems in CT2 is required for smooth operations of Cargo Terminal and to restore its designed cargo handling capacity to 2,50,000 MT p.a. as envisaged in SPRHA.

- 4.2.8 The Authority takes note of ISP submission stating that CCF is approaching its capacity limits in some functional areas and CCF has also suffered deterioration in its mechanical, electrical, and plumbing building systems and material handling system over the years, constricting its effective utilization.

WFSBPL, in respect of air-conditioning system indicated that though certain components of such as Chiller, Pumps, Cooling Tower, AHU, and Cold Storage Units are in serviceable condition; however, the HVAC Panels, Pump Foundation, Actuators and various gauges and valves need to be replaced. The ISP further stated that the Sewage Treatment Plant in CCF also requires major repairs.

The Authority notes that ISP is contractually bound to enhance annual capacity of CCF from 40,000 MT to 80,000 MT. Further, considering the present poor condition of the CCF terminal (as per the

ISP) requiring restoration and refurbishment of infrastructure & MHS etc. to restore cargo handling capacity to its designed level and to further enhance it to 80,000 MT.

The Authority, further notes that WFSBPL has projected a YoY nominal maintenance capex (misc. capex) amounting to ₹ 1 to 2 crores from tariff year 2 to tariff year 5 of the First Control Period. The Authority feels that ISP, apart from major planned capex as discussed above, may require unforeseen capex on cargo handling equipment etc., the nominal capex projected appears reasonable considering the scale of cargo handling operations.

In view of the above, the Authority feels that the CAPEX proposed by the ISP on CCF during the First Control Period is imperative for conduct of smooth business operations & to meet future demand.

4.2.9 As regard to capitalization schedule proposed for the First Control Period, the Authority observes that ISP has proposed capitalization of around 95%, of total CAPEX planned for the First Control Period, in the initial year of the Control Period (i.e. FY 2023-24) and further, vide email dated 07.03.2023, the ISP conveyed that prior to commencement of Operations they will spent ₹ 52.76 crores and the remaining will be capitalized in the Control Period.

4.2.10 The Authority further observes that capitalization proposed by the WFSBPL in respect of CT2 refurbishment/ restoration during FY 2023-24 includes consultancy expenses totaling to Rs. 8.26 crores. The Authority sought details of consultancy expenses proposed to be incurred by the ISP. WFSBPL, in its response, submitted that during the initial phase from November 2022 to March 2023, they required to spend both capital expenditure and operating expenditure (for implementation of concession awarded by the airport operator). The ISP submitted that the consultancy expenses of Rs 8.26 crores proposed is primarily linked to project management, design and consulting expenses for services provided by various consultants in the course of refurbishment and strengthening of the terminal. The ISP further gave the breakup of consultancy expenses of ₹ 8.26 crores as under:

Particular of Expenses	₹ in Crores
Project Management Consultancy Cost - M/s CBRE South ASIA Pvt. Ltd. & M/s Realog Consulting GMBH	5.32
Other consultancy cost (IT Consultancy) - M/s Deloitte Touche Tohmatsu India LLP	2.94
<b>Total</b>	<b>8.26</b>

The Authority sought clarification from WFSBPL regarding the expected cost of PMC amounting to ₹ 5.32 crores and whether the PMC cost includes consultancy work relating to Material Handling Systems (Equipment). ISP vide email dated 04.04.2023 stated that the project involves a brownfield redevelopment and MHS recommissioning of two fully mechanized facilities with serious structural and dilapidation challenges to be remediated during ongoing operations. Also, under the scope, the PMC is integrally involved in the assessment, design, quantification, pricing, tendering, and remediation/ installation of all aspects of the capex of the shell and MHS. As per the ISP, engagement of the PMC was necessary as the WFSBPL does not have, nor do its parent companies have, the internal expertise in brownfield redevelopment and MHS recommissioning to accomplish this undertaking internally.



The ISP further stated that the shell PMC was selected by competitive bid. The MHS PMC was selected for its particular expertise in the subject matter and prior track record in the Indian market at a fee consistent with MHS consulting fees globally.

- 4.2.11 The Authority takes note of clarification submitted by the ISP and observes that the proposed PMC cost i.e. ₹ 5.32 crores accounts for 4% of total CAPEX proposed in respect of facility construction and MHS w.r.t. CT2 and CCF (totaling to ₹ 124.21 crores) by the ISP for the FY 2023-24. The Authority further notes from ISP's submission that PMC have been appointed in connection with the works relating to refurbishment/ restoration project in respect of CT2 & CCF and consultant will play critical role in successful implementation of aforesaid project. As per WFSBPL, PMC will be responsible for and will assist the ISP in each stage of project implementation, right from project planning, designing, tendering of works, monitoring of project work, testing and commissioning etc. up to the handing over of the facilities to the ISP. Considering the nature and extent of PMC involvement in the completion of the refurbishment/ restoration work in respect of CT2/ CCF, for smooth rollout of cargo services by the ISP, the Authority feels that the PMC cost proposed to be incurred by the ISP is reasonable.
- 4.2.12 On the basis of examination of proposed CAPEX and considering the clarifications & justifications submitted by WFSBPL, the Authority proposes to consider Additions to RAB submitted by WFSBPL as per Table 8.

#### 4.3 **WFSBPL submission on Depreciation for the First Control Period:**

WFSBPL has computed the depreciation for the First Control Period as given in Table below:

**Table 9: Depreciation proposed by WFSBPL for the First Control Period**

(₹ in crores)

Particulars	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	Total
Cargo Complex	6.73	6.73	6.73	6.73	6.73	<b>33.65</b>
Cargo Equipment	1.45	1.52	1.63	1.78	1.99	<b>8.37</b>
Computers	0.99	0.99	0.99	0.99	0.99	<b>4.95</b>
Fixtures	1.40	1.40	1.40	1.40	1.40	<b>7.00</b>
<b>Total</b>	<b>10.57</b>	<b>10.65</b>	<b>10.75</b>	<b>10.90</b>	<b>11.11</b>	<b>54.00</b>

#### 4.4 **Authority's Analysis on Depreciation:**

- 4.4.1 The Authority compared the depreciation rates and useful life of assets applied by BSSDPL, Delhi, during the First Control Period and those prescribed as per AERA Order No. 35/2017-18 as given below:

**Table 10: Comparison of Depreciation rates of WFSBPL, Delhi vis-a-vis AERA Order 35**

Particulars	As per ISP Submission	As per AERA Order no. 35/2017-18
	Useful Life	
Cargo Complex	15	30/60
Cargo Equipment	15	15
Computers	6	6/3
Fixtures	7	7

4.4.2 The Authority notes from the MYTP submission of WFSBPL that ISP has claimed ₹ 54 crores as depreciation, considering useful life of all components of RAB as per Order no. 35/ 2017-18 (except Infrastructure improvement, where the useful life is considered as 15 years, based on the concession term which is ending on 2038). WFSBPL has proposed to depreciate the infrastructure improvements (during leasehold period) by the end of concession period.

4.4.3 The ISP in its MYTP submission has stated that they have considered depreciation @ 50% of the value of the assets during the year of capitalization (assuming that asset is capitalized in the middle of the financial year). However, it is observed that WFSBPL has computed depreciation, considering 100% value of the assets during the year of capitalization, which is not consistent with their aforesaid submission.

4.4.4 In view of the above and considering that during the first Tariff year, most of the capital works are likely to be capitalized around middle of FY 2023-24, therefore, the Authority proposes to compute depreciation for the year of capitalization, considering 50% of the asset value, as per the table given below:

**Table 11: Depreciation computed by AERA for WFSBPL for the First Control Period**

Particulars	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	Total
Cargo Complex	3.37	6.97	6.97	6.97	6.97	<b>31.25</b>
Cargo Equipment	0.72	1.53	1.63	1.76	1.95	<b>7.59</b>
Computers	0.49	0.99	0.99	0.99	0.99	<b>4.45</b>
Fixtures	0.70	1.40	1.40	1.40	1.40	<b>6.30</b>
<b>Total</b>	<b>5.28</b>	<b>10.89</b>	<b>10.99</b>	<b>11.12</b>	<b>11.31</b>	<b>49.59</b>

4.4.5 The Authority proposes to consider the Depreciation computed by AERA for WFSBPL as per Table 11 stated above.

#### **4.5 WFSBPL submissions on Regulatory Asset Base (RAB):**

Based on the financial data submitted by WFSBPL, the computation of Opening, Closing and Average RAB for the First Control Period is given in the Table below:

**Table 12: RAB for the First Control Period submitted by WFSBPL**

(₹ in crores)

Particulars	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	Total
Opening RAB	-	127.83	118.25	108.92	99.82	
+ Additions	138.40	1.06	1.43	1.80	2.28	<b>144.97</b>
(-) Disposals	-	-	-	-	-	
(-) Depreciation	10.57	10.65	10.75	10.90	11.11	<b>53.99</b>
<b>Closing RAB</b>	<b>127.83</b>	<b>118.25</b>	<b>108.92</b>	<b>99.82</b>	<b>90.99</b>	
<b>Average RAB</b>	<b>63.92</b>	<b>123.04</b>	<b>113.59</b>	<b>104.37</b>	<b>95.40</b>	

**4.6 Authority's Analysis on Average RAB:**

4.6.1 The Authority considering the revised depreciation as per Table 11, recomputed Average RAB as sated under:

**Table 13: RAB computed by the Authority for WFSBPL for the First Control Period**

Particulars	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	Total
Opening RAB	-	133.12	118.25	108.92	99.82	
+ Additions	138.40	1.06	1.43	1.80	2.28	<b>144.97</b>
(-) Disposals	-	-	-	-	-	-
(-) Depreciation	5.28	10.89	10.99	11.12	11.31	<b>49.59</b>
<b>Closing RAB</b>	<b>133.12</b>	<b>123.29</b>	<b>113.73</b>	<b>104.41</b>	<b>95.38</b>	
<b>Average RAB</b>	<b>66.56</b>	<b>128.21</b>	<b>118.51</b>	<b>109.07</b>	<b>99.90</b>	

4.6.2 The Authority proposes to consider Average RAB as per table 13 above.

**4.7 Authority's Proposals regarding Additions to RAB, Depreciation, Regulatory Asset Base (RAB)**

Based on the material before it and based on its analysis, the Authority proposes the following for the First Control Period:

4.7.1 To consider Additions to RAB as per Table 8.

4.7.2 To consider the Depreciation as per Table 11.

4.7.3 To consider Average RAB as per Table 13.

## **CHAPTER 5: OPERATING & MAINTENANCE EXPENDITURE**

- 5.1 As provided in Clause 9.4 of the Guidelines mentioned in Direction No. 04/ 2010-11, the Operation and Maintenance (O&M) Expenditure shall include all expenditures incurred by the Service Provider(s) including expenditure incurred on security operating costs, other mandated operating costs and statutory operating costs.
- 5.2 Operation and Maintenance Expenditure submitted by WFSBPL is segregated into the following categories:
- Payroll Cost
  - Admin & General Cost
  - Concession Fees & Facility Rental Costs
  - Marketing and Branding Costs
  - Custodianship Costs
  - IT Costs
  - Consumables
  - R & M Cost
  - Utility Cost
  - Return on Security Deposit and Performance Guarantee
  - Interest & Finance charges
  - Pre-operative Expenses
- 5.3 Operating & Maintenance Expenditure projected by WFSBPL for the First Control Period is given in Table below:

**Table 14: Operating & Maintenance Expenditure projected by WFSBPL for the First Control Period**

Particulars	₹ in Crores)						
	2023-24# (In year)	2023-24 (Annual.)	2024-25	2025-26	2026-27	2027-28	Total
Payroll Cost	33.43	40.12	48.86	56.50	65.70	76.80	281.29
Admin & General Cost	12.72	15.26	16.31	17.43	18.63	19.91	85.00
Concession Fees	39.08	46.90	63.60	85.59	108.11	136.83	433.21
Facility Rental Costs	21.58	25.90	27.19	28.55	29.98	31.48	138.78
Marketing and Branding costs	1.30	1.56	2.12	2.85	3.60	4.56	14.43
Custodianship Costs	0.35	0.42	0.42	0.42	0.42	0.42	2.03
IT Costs	5.88	7.05	7.89	8.82	9.86	11.03	43.48
Consumables	1.40	1.69	1.88	2.09	2.33	2.59	10.29
R & M Cost	6.77	8.12	9.04	10.07	11.21	12.48	49.57
Utility Cost	3.13	3.76	4.19	4.66	5.19	5.78	22.95
Return on security deposit	5.83	7.00	7.00	7.00	7.00	7.00	33.83
Return on Performance Guarantee	0.76	0.91	1.13	1.43	1.73	2.10	7.15
Interest & Finance Charges	15.06	18.08	19.02	19.50	19.29	18.00	90.87
Pre-operative Expenses	15.35	15.35	-	-	-	-	15.35
<b>Total</b>	<b>162.66</b>	<b>192.12</b>	<b>208.66</b>	<b>244.91</b>	<b>283.04</b>	<b>328.99</b>	<b>1228.24</b>

# Cost projected for FY 2023-24 is for 10 months based on COD (May, 23 end).

WFSBPL has submitted the following assumptions/justifications for O&M expenses projected for the First Control Period:

**5.3.1 Payroll Cost:** WFSBPL submitted that the total manpower count for handling current level of traffic is approximately 962, of which, 478 are direct labour employees in the warehouse. The remainder include security staff and agency staff. The ISP has estimated operation considering cargo handling of around 149 kilos per man hour. The WFSBPL submitted that considering the reduction in traffic during the first year of the operations, the number of direct labour employees in the warehouse have been reduced to 380, to maintain a productivity of ~149 kilos cargo handling per man hour. WFSBPL submitted that on the basis of efficient practices and procedures, it expects significant productivity improvements over the control period. From FY 26, ISP projects a 15% per annum efficiency in direct labour employees, driven by an improvement in productivity within the warehouse from 149 kilos per man hour to 243 kilos per man hour over the control period, representing a cumulative improvement of 63%.

As per WFSBPL, there is requirement of administrative employees over and above those currently assigned to cargo by the incumbent operator. As per the ISP, the total estimate for these additional employees will be Rs. 9.00 Crores from year 1 on an annualized basis.

The ISP, based on the traffic projections, existing manpower count of incumbent operator and WFSBPL's global experience has estimated the total number of employees for its proposed Cargo operations at 878, including the new indirect headcount for administration. Further, the projected number of employees have been grouped into various categories and the average monthly salary is also estimated for each category of employees.

In addition, WFSBPL submitted that they have analyzed the relationship between historical Wholesale Price Index (WPI) - WPI Manufactured Products and minimum wage growth for the loaders and unloaders category, based on official publications of Government Authorities for India as a whole. As per the ISP, the calculated relationship is wage growth of 3.22x of the WPI growth, as summarized in the table below:

Indicative Ratio of Minimum Wage to WPI Inflation

Particulars	FY 12	FY 22	CAGR - FY 12 to FY 22	Source
WPI - Manufacture of products	100	135	3.05%	Office of the Economic Advisor, GoI
Min. wage (₹ pm)	6,656	17,004	9.83%	Ministry of Labour and Employment, GoI
Min. wage / WPI- Manufacture of products			3.22	

WFSBPL has considered 4.4% as average long term WPI growth and calculated 14.17% (4.4% \* 3.22) annual inflation estimate for direct personnel cost. Further, ISP assumed that as volume increases, personnel costs will also rise based on volume growth. As per WFSBPL, % cost variability (with volume change) is dependent on the type of personnel cost and is incremental to inflation cost applied to the estimates, as tabulated below:

Cost Variability with Cargo Volume and Inflation Assumptions for Personnel Costs

Type	No. of employees	% Cost Variability with Cargo Volume	% Inflation/Increase
Field Direct	380	100.0%	14.2%
Field Overhead	9	30.0%	14.2%
SG&A / Indirect	36	15.0%	14.2%
Agency & Other Direct Staff	453	50.0%	14.2%
<b>Total</b>	<b>878</b>		

- 5.3.2 **Administrative & Management Cost:** The Authority notes from the submission of ISP that these costs are primarily associated with selling, general and administrative expenses functions, including finance (e.g., Audit fees), legal, and other miscellaneous non personnel related costs.

WFSBPL conveyed that costs under this expense head have been estimated based on the incumbent operator's cost and internal WFS Group benchmarking. Further, in the base year, these are adjusted for reduced volumes. As per the ISP, for the forecast period, these costs are estimated to be 25% variable with volume and subject to inflation of 4.4% p.a. in line with WPI.

- 5.3.3 **Concession Fees:** WFSBPL has projected the concession fees at the rate of 30% of the gross revenue as per clause 13.1 of the concessionaire agreement with BIAL.

- 5.3.4. **Facility Rental Costs:** WFSBPL submitted that in line with lease rental charge requirements outlined in Schedule C of the sub lease deed and clause 13.1 of the Concessionaire agreement, lease rent has been calculated at the rate of Rs. 468 per sq mtr. per month for FY 2023-24 and will be increased by 5% from FY 2024-25 and thereon. For the purpose of calculation of lease rental rent, the area of CT2 and CCF considered as 29740 sq mtr. and 16374 sq mtr. respectively.

- 5.3.5. **Marketing and branding costs:** WFSBPL, in line with the requirements set out in Clause 16 of the SPRHA, has made a provision for marketing and branding cost @ 1% of the gross revenue.

- 5.3.6. **Custodianship Costs:** WFSBPL has submitted that the business is required to have a custom bond outstanding to the value of Rs. 60 Crores. This will be executed by BIAL and the costs will be borne by JVC. This is governed by para 18 of the concessionaire agreement between the two parties (ISP and Airport Operator). ISP has estimated costs on the custom bond outstanding at 0.7% of the total custom bond outstanding. This 0.7% represents the commission to be paid to the bank on the bond to be executed.

- 5.3.7. **Consumable, Utility, Repair and Maintenance Cost:** WFSBPL, based on comprehensive preventive and ongoing maintenance program developed for cargo operations, estimates that spare parts purchasing along with monitoring of warranty clauses with the vendors, can contain this cost to their tightest. This estimate has been developed based on recurring maintenance expenses at comparable WFS stations. Similarly, utility costs estimated across comparable stations and in consideration of the utility tariff applicable at KIA, Bengaluru. As per the ISP, these costs are estimated to increase based on the volume with cost variability of 70% vis-à-vis volume, and further subject to inflationary increase @ 4.4% p.a. (WPI) from FY 2024-25 onward.

- 5.3.8. **IT Cost:** WFSBPL highlighted that they embrace cutting edge technology and driving transformational change by employing the sophisticated IT systems, which differentiates them from the competition. WFSBPL submitted that the IT cost buildup includes various cost allocations for implementation of global operations excellence programs, labour management, state-of-the-art cybersecurity and other sophisticated technology, which as per the ISP, has not been adopted by the

current operator at CT2. Accordingly, as per WFSBPL, estimated IT costs are higher as compared to incumbent operator. The ISP, while estimating projected IT costs for the Control Period, has considered IT cost variability factor @ 75% vis-à-vis volumes and further escalation @ 4.4% of WPI from FY 2024-25 onward.

**Table 15: IT Cost Estimates (OPEX) for Tariff Year 1 as submitted by WFSBPL**

(₹ in crores)

Particular	Details	Total expenses for Year 1 (Annualized)
Infrastructure	Physical servers, IT operations, hypervisors & SAN / storage, cybersecurity, workstations and laptops, cabling and any other infrastructure	1.21
Network and Communications	Circuits, firewalls, routers, any other data room infrastructure, Wi-Fi, network monitorization, administration, IP phones, telephones etc.	2.62
Others	Utilities, maintenance, equipment rental	1.63
Business Applications (incl. WMS System)	SLA management, warehouse monitorization, cool temperature, payroll/accountancy, pulse, SITA prepare, PMP prepare and others	1.60
<b>Total IT Costs</b>		<b>7.05</b>

*Note: This analysis does not include IT personnel as these are included in personnel costs.*

5.3.9. **Cost of providing Security Deposit and Performance Guarantee:** WFSBPL submitted that in accordance with the SPRHA, the ISP is required to deposit interest-free refundable security amounting to ₹ 50 crores with BIAL during the concession period. ISP has computed cost of security deposit [return on SD] @ 14% p.a. of the value of SD.

ISP further submitted that as per concessionaire agreement, the WFSBPL is required to submit a performance guarantee equivalent to the 3 month's forecasted revenue share payable to the Airport Operator (30% of gross revenue). ISP has computed cost of guarantee @ 5% p.a. of value of performance guarantee.

5.3.11 **Preliminary Expenses:** WFSBPL has submitted that as per clause 4.8 of JV agreement (between WFS Global SAS and BIAL), all the preliminary expenses with regard to the incorporation of the JV2 Company including all the costs, charges, expenses, professional fees, out of pocket expenses that may be incurred during the incorporation and formation of the JV2 Company and incidental to the establishment of the JV2 Company shall be borne by and paid/ reimbursed for by the JV2 Company. Further, ahead of commencement of operations on 24<sup>th</sup> May 2023, WFSBPL is required to employ several individuals, consultants and invest in operating expenditures to be ready to commence operations on this date.

5.3.12 **Interest Expenses:** WFSBPL has submitted there is a loan agreement (External Commercial Borrowing) with the parent company in place to draw down up to ₹ 109 crores, governed by the RBI ECB regulations. Apart from this, WFSBPL has also projected further loan requirement of ₹ 80.09 crores, based on their forecasts. Details of loan, loan repayment schedule and interest liability as submitted in form F5 & F6(a) of MYTP by WFSBPL is as under:

**Table 16: Projection of Interest on Loan submitted by WFSBPL for the First Control Period**

(₹ in Crores)

Particulars	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
Outstanding principal at the beginning of the year	189.05	189.05	189.05	180.16	168.56
Principal repayment during year	-	-	8.88	11.61	11.61
Average interest for the year	15.06 <sup>#</sup>	19.02	19.49	19.28	18.00
Outstanding principal at end of year	189.05	189.05	180.16	168.56	156.95
<b>Interest rate % (as per Form F5 of MYTP)</b>	<b>9.56%</b>	<b>10.06%</b>	<b>10.56%</b>	<b>11.06%</b>	<b>11.06%</b>

<sup>#</sup>includes ₹ 3.10 crores prior to COD

#### 5.4 **Authority's Examination on O&M expenses for the First Control Period:**

The Authority has reviewed various components of OPEX, including growth rates considered by the ISP, for projecting OPEX for the First Control Period. The Authority notes that WFSBPL is expected to commence its commercial operations from 24.05.2023, accordingly OPEX has been projected by the ISP for 10 months only during FY 2023-24. The Authority's analysis on OPEX projected by WFSBPL is as under:

- 5.4.1 **Payroll Cost** –WFSBPL has estimated total manpower requirement of around 878 numbers for their maiden cargo operations at Bengaluru Airport, as against total 962 employees approx. deployed by the incumbent operator.

The Authority notes that payroll cost projected by the ISP is much higher than that of incumbent cargo operator (AISATS), though manpower number (878) projected by the ISP is lower than that of incumbent operator (962). As per the WFSBPL, while projecting payroll expenses, they have considered prevailing pay structure of the incumbent operator, manpower productivity, their global experience, cost variability with volume and local factors etc. The Authority observes from the MYTP submission that after working out average salary for each category of employees, ISP has further considered a 25% upliftment in salary for all category of employees.

The ISP vide emails dated 27.02.2023 & 07.03.2023 submitted the basis of payroll cost assumed for FY 2023-24, which as per the ISP, has been based on the pay structure of incumbent operator for the FY 2021-22 as under:

Particulars	₹ in crores
Payroll Costs for FY 2021-22 as per the incumbent	20.76
Increased for FY 2022-23 at 14%	2.91
Increased for FY 2023-24 at 14%	3.31
+ Management salary cost including annual increments	5.15
<b>Total</b>	<b>32.13</b>
+ Other cost uptake on the above @ 25%	8.03
<b>Total Cost considered for FY 2023-24</b>	<b>40.16</b>

It is observed that though WFSBPL while projecting OPEX, including payroll & R&M Expenses etc., has based its cost estimates on the prevailing cost structure of the incumbent operator; however, ISP has not submitted any documents relating to cost structure of present incumbent operator. As per the information relating to present cargo operator available with the Authority, AISATS has considered just 3% YoY increase on its total payroll costs for their Bengaluru cargo operations, as against annual inflation of 14.2% considered by the ISP for payroll expenses. Moreover, the YoY increase of 14.2% considered by the ISP is in addition to volume driven increase in payroll expenses.



The justifications submitted by WFSBPL for upliftment of 25% in payroll costs for each category of employees, over and above the category-wise average salary calculations, are not convincing and obscure; as baseline salary for each category of employees have already been worked out by the ISP considering all the relevant factors, moreover baseline salary is further subject to annual increments & increase in minimum wages etc.

In addition, as per the ISP, the majority of cargo employees falls under the unskilled labour category whose wages are governed under the minimum wages, notified by Government Authorities from time to time, and annual increase in minimum wages is generally lower than the YoY increase considered by the ISP for these employees.

Besides above, it is also observed that the ISP has linked historical WPI-Manufacturing with increase in minimum wages and has worked out projected inflation in payroll expenses @ 14.2%, based on ratio of historical increase in minimum wages with historical increase in WPI manufacturing (FY 12 to FY 22). It is not appropriate to compare and link increase in price of commodities (WPI manufacturing) with increase in price of services (minimum wages).

In view of the above, the Authority proposes to rationalize the payroll expenses projected by the WFSBPL, by excluding upliftment of 25% in salaries for all employees, considered by the ISP for the first Tariff Year. Accordingly, payroll expenses for the ISP have been worked out at ₹ 32.13 crores (annualized) by the Authority, as against Rs. 40.12 crores proposed by the ISP for the FY 2023-24.

However, as regard to Y-o-Y increase in payroll costs considered by the WFSBPL, the Authority considering the projected increase in cargo volumes, increase in minimum wages and annual salary increments and also taking into account the projected Y-o-Y increase in the revenues which is in line with the projected Y-o-Y increase in payroll costs, proposes to consider Y-o-Y increase in payroll expenses as proposed by the ISP.

The Authority solicits specific comments of Stakeholders on the payroll costs projected by the ISP for the First Control Period.

- 5.4.2 **Administrative & General Cost:** The Authority notes that WFSBPL has considered Administrative and General cost as 25% variable with volume and further an inflation of 4.4% p.a. in line with WPI has been proposed, resulting in an YoY increase of 7% in Administrative and General expenditure from FY 2024-25 to FY 2027-28. The Authority considers YoY increase of 7% projected by the ISP in Administrative & General Expenses for the First Control Period as reasonable.
- 5.4.3 **Concession Fee:** The Authority notes that as per clause 13.1.1 of Service Provider Right Holder Agreement, WFSBPL is obliged to pay a revenue share of 30% of Gross Revenue to BIAL in the relevant financial year. The Authority notes that Concession Fee payable to the Airport Operator is linked to the projected Revenue of the Cargo Service Provider. Accordingly, the Authority proposes to consider Concession Fee, based on Revenue for the First Control Period as calculated by the Authority under chapter no. 8 of this consultation paper.
- 5.4.4 **Facility Rental Cost:** The Authority notes that clause 13.1 of the Concessionaire agreement, lease rent is be calculated at the rate of Rs. 468 per sq. mtr. per month for FY 2023-24 and will be increased by 5% from FY 2024-25 and thereon. The Authority observes that for the purpose of calculation of rent, the area of CCF considered by ISP is 16374 sq. mtr., whereas as per Annexure F of joint venture agreement - Deed of sub-lease of project site, area of existing CCF mentioned is 10035 sq. mtr. The Authority sought clarification from ISP in this regard. In response, WFSBPL has submitted that they require further space in order to expand the facility and improve operations and

airport operator has agreed to it. WFSBPL, vide email dated 17.02.2023 submitted the excerpt of lease deed, stating that the ISP is allotted total area of 29554 sq. mtr. for CT 2 and 20281 sq. mtr. for CCF. Out of total area of 20281 sq. mtr. in respect of CCF, present area of CCF is 10588 sq. mtr. and is already developed and balance 9693 sq. mtr. is earmarked for expansion. Currently an area of 5841 sq. mtr. is under development and remaining area i.e. 3852 sq. mtr. (9693-5841) is meant for future development. In view of the clarification furnished by the ISP, the Authority proposes to consider facility rental charges for the Control Period as proposed by the ISP.

**5.4.5 Marketing and Branding Cost:** The Authority notes that as per clause 16.2 of Joint Venture Agreement, Service Provider Right Holder also shall maintain the cargo marketing budget equivalent to 1% (one percent) of its gross revenue as set out in its business forecast. The proceeds of such cargo marketing budget shall be used annually in consultation with BIAL for marketing of Cargo Terminal 2 and Cargo Handling Services 2. The Authority further notes that WFSBPL has linked the marketing and branding cost to the projected revenue of the Cargo Service Provider. Accordingly, the Authority proposes to consider Marketing and Branding cost based on Projected Revenue for the First Control Period as calculated by the Authority under Chapter no. 8 of this consultation paper.

**5.4.6 Custodianship Cost:** The Authority notes that as per clause 18 of Joint Venture Agreement, Service Provider Right Holder shall be solely responsible for performing all the obligation under and complying with all applicable laws relating to Indian Customs, whether applicable to BIAL as custodian or otherwise. The extract of the relevant Clause is as under:

*“SPRH-2 i.e. WFSBPL shall reimburse to BIAL the costs incurred by BIAL for providing bond, bank guarantee and any other costs required by customs authorities in relation to its custodianship.*

*The SPRH-2 shall also be responsible for costs such as penalties, fines, other costs related to custodianship, or any other cost required by Customs”*

In the view of the above, the Authority proposes to consider the custodianship cost (commission @ 0.7%) payable to bank on the bond to be executed for estimated outstanding custom outstanding of Rs. 60 crores, as submitted by ISP for the First Control Period.

**5.4.7 Consumable, Utility, Repair and Maintenance Cost:** The Authority notes that WFSBPL has proposed Consumable, Utility, Repair and Maintenance costs to be 70% variable with volume and further subject to annual inflation of 4.4% p.a. in line with increase in WPI proposed, resulting in an YoY increase of 11% in Consumable, Utility, Repair and Maintenance expenditure from FY 2024-25 to FY 2027-28.

The Authority observes that as per the ISP, the current state of the Cargo Terminal (CT2) and CCF is extremely poor and in disrepair. Accordingly, ISP has undertaken major refurbishment of CT2 & CCF and procurement of MHS at an estimated cost of Rs 109.47 crores & Rs. 28.93 crores (incl. expansion) respectively. Considering that WFSBPL is spending huge amount on refurbishment & restoration works & procurement of new Cargo Handling Equipment for Cargo Terminal & CCF, it should result in lower R&M expenses for the ISP, at least in initial years of the Control Period. In the above background, repair and maintenance expenses of ₹ 49.57 crores proposed by the WFSBPL for the First Control Period appears to be on higher side.

The Authority sought clarifications from ISP in this regard. In response thereto, ISP has submitted that they have estimated the repair and maintenance cost for the control period by starting with the approximate costs that are incurred by the incumbent. WFSBPL further submitted that approximately ₹ 21 crores only have been proposed to be spent as capital expenditure on new equipment. This

mainly consists of forklifts and x-ray machines. Apart from these changes, the existing equipment would continue, and therefore WFSBPL expects that the costs incurred by the incumbent would continue. Further, it should be noted that the CT2 terminal is about 15+ years old.

As already indicated above, after the major refurbishment & restoration work in respect of CT2 & CCF and procurement of new cargo equipment, the Authority feels that the repair and maintenance costs proposed by the ISP is on higher side and on top of it, ISP has considered YoY escalation in R&M expenses at 11 %, whereas, ISP itself has estimated WPI of 4.4% p.a. Therefore, the Authority proposes to rationalize the R&M costs by considering lower YoY increase in R&M expenses @7% YoY from FY 2024-25 onward for the First Control Period as stated under:

**Table 17: Repair & Maintenance cost as proposed by the Authority**

Particulars	FY 2023-24 (10 months only)	FY 2023-24 (annualized)	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	Total
Closing RAB (i)	127.83	127.83	118.25	108.92	99.82	90.99	
R & M Cost (ii)	<b>6.77</b>	<b>8.12</b>	<b>8.69</b>	<b>9.30</b>	<b>9.95</b>	<b>10.65</b>	<b>45.37</b>
% of RAB (ii)/ (i)	5%	6%	7%	9%	10%	12%	
YoY% Increase	-	-	7%	7%	7%	7%	

5.4.8 **IT costs:** The Authority observed that most of the items proposed by WFSBPL under IT OPEX cost apparently appears to be capital in nature. Therefore, the Authority sought clarification about the nature of IT costs considered under OPEX. In response thereon, ISP has confirmed that projected IT costs (under OPEX) differs from the CAPEX related to IT. Further, vide email dated 09.02.2023, WFSBPL has submitted that they have undertaken a full analysis of the underlying expenditures (IT expenses) and segregated these into capital expenditures and operating expenditures on an independent basis and as per the ISP, the operating expenditures proposed as OPEX are appropriate. The ISP further clarified that within “infrastructure” there are physical servers that need to be established are included in capex figure and the recurring operating expenditures to keep these physical servers running has been included in operating expenditure as IT costs.

Other IT costs included in operating expenditures are explicitly recurring and operating, for example yearly subscriptions, licenses, rentals, cloud bandwidth/storage payments, circuits, internal line rentals, printer rentals and applications payments amongst others.

WFSBPL submitted that the projected IT operating costs are based on the incumbent operator’s baseline IT costs (OPEX). As per the ISP, the general maintenance and repair cost by the incumbent operator is almost entirely for facility and ground support equipment required to operate the facility. However, WFSBPL intends to bank on IT to improve the IT infrastructure and operating procedures, WFSBPL fully intends to pay for maintenance and support from high quality IT service providers in order to avoid any high-risk scenarios that could impact customers and service quality.

ISP further submitted that WFS is a market leader in IT infrastructure and operating procedures at cargo operations worldwide. In calculating its operating expenditures for this facility, WFSBPL has envisaged best- in-class infrastructure, networks, cyber security and other Investments and operating expenditures that will bring the facility in line with WFS’ other facilities worldwide. As per the ISP, the projected expenditure on IT is required in order to facilitate automation efficiencies envisaged in this business plan including (i) the 5% per annum demurrage efficiency proposed in the calculations from year 3 as well as (ii) the 15% per year improvement in annual direct field personnel productivity (costs) projected from year 3. These investments also help improve the overall customer experience

and, in our view, will contribute to delivering the aggressive volume growth outlined within the MYTP.

The ISP vide email dated 27.02.2023 further provided line item-wise details of IT OPEX for the FY 2023-24 as stated under:

Particulars	(₹ in lakhs)
<b>Business Applications</b>	
OPS -Core Cargo	30.93
OPS -Warehouse Monitorization	8.33
OPS -SLA Management CQC	8.33
Messaging	12.50
OPS -Others	12.50
OPS -Cool Temperature	4.17
Accountancy	9.15
Payroll	20.83
T&A	37.50
Pulse	8.33
SITA Prepare	3.13
PMP and others BI	4.17
<b>Infrastructure operations</b>	
Physical Server Operations	1.61
IT Operations	12.18
Hypervisors and SAN/STORAGE	1.61
Cybersecurity	
Subscriber Cost - Threat spike	5.39
Subscriber Cost -Trend	2.16
Subscriber Cost – Carbon	0.12
Renting printers	25.00
Workstations and Laptop Recurring Costs	66.24
Cabling and others	6.90
<b>Network and communications</b>	
Operating Circuits	19.32
Firewalls Location Operating Costs	7.67
Firewalls BIAL assistance	7.20
Switches Operating Costs	5.75
Network Monitorization, Administration and Others	94.20
Number of VoIP circuits - LAN connection	9.00
IP Phones Operating Costs	4.95
Telephones Operating Costs	20.83
Others communications	92.62
<b>Others</b>	
Combined Packages -- Support & Maintenance	150.00
Others	12.50
<b>Total</b>	<b>705.12</b>

From the above, it is evident that WFSBPL is aggressive on implementation of IT systems and applications for their proposed cargo operations at Bengaluru Airport. Accordingly, ISP has earmarked IT OPEX of ₹ 7.05 crores in the first year of their operations itself. Further, the Authority notes that ISP has considered YoY increase of 12%, envisaging 75% IT cost variability with volume

which is further subject to inflation factor of 4.4% p.a. in line with WPI, for FY 2024-25 to FY 2027-28.

Since, the ISP has already considered broad-based IT OPEX in first year itself (FY 2023-24), the Authority feels that going forward with 12% YoY escalation in IT OPEX is on the higher side, particularly taking into account WPI inflation estimated by the ISP is around 4.4%. Further, 75% IT cost variability with volume assumed by ISP also appears to be on higher side, as IT hardware and software are capable of handling higher cargo turnover (in financial terms), though the physical handling of higher cargo volumes may require more material handling equipment.

In view of the foregoing, the Authority proposes to rationalize the IT costs by considering lower YoY increase in IT costs @ 7% from FY 2024-25 to FY 2027-28 as under:

**Table 18: IT Cost (OPEX) for WFSBPL proposed by the Authority for the First Control Period**

(₹ in crores)

Particulars	FY 2023-24	FY 2023-24 (annualized)	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	Total
IT Costs	5.88	7.06	7.55	8.08	8.64	9.25	<b>39.40</b>
YoY increase	%	-	7%	7%	7%	7%	

**5.4.9 Return on Security Deposit (SD) and Performance Guarantee:** The Authority notes that as per Joint Venture Agreement, ISP is required to pay ₹ 50 crores of interest free refundable security deposit to the Airport Operator during concession period and performance security in the form of bank guarantee equivalent to three months of projected revenue share in the relevant financial year. ISP has proposed return @14% p.a. on Security deposit amount and 5% p.a. on performance guarantee amount in its MYTP.

As regard to return on interest free SD, the Authority proposes to consider 5% return on interest free SD, as per the AERA's consistent approach regarding rate of return on interest free SD and also proposes to exclude return on SD from OPEX table as the same has been given separately along with return on RAB under ARR calculation.

The Authority sought basis of proposed bank commission @ 5% p.a. in respect of performance guarantee, which appears to be higher. The ISP vide email dated 07.03.2023 stated that it was a clerical error and bank commission on performance guarantee may be taken as 1.9% p.a. instead of 5% p.a.

**5.4.10 Preliminary Expenses:** The Authority notes that as per clause 4.8 Joint Venture Agreement (between ISP and its holding company [WFS Global SAS]), all the preliminary expenses with regards to the incorporation of the joint venture company including all the costs, charges, expenses, professional fees, out of pocket expenses that may be incurred during the incorporation and formation of the WFSBPL and incidental to the establishment of the Joint venture Company shall be borne by and paid/ reimbursed for by the WFSBPL.

The Authority sought break up of preliminary expenses with documentary evidence for incurrence of such expenses, as most of such expenses must have already been incurred before or up to the date of incorporation of the company. In response, the break up provided by ISP is as under:

**Table 19: Estimated breakup of expenses to be incurred by the ISP before commencement of operations as provided by WFSBPL**

<b>Nature of Expense</b>	<b>₹ in crores</b>
Personnel Costs	4.49
IT Operating Costs	4.15
WMS Operating Costs	0.61
Interest on loan –WFS Global	3.10
Travel cost	0.72
HR consultancy services	0.50
Commercial Consultant	0.42
Others (Audit fee, inauguration expenses, space rental, accounting services, other consultancy services.)	1.36
<b>Total</b>	<b>15.35</b>

The Authority notes that major chunk of preliminary expenses relates to Personnel, IT and Interest on Loan; accordingly, breakup of these expenses were sought from the ISP.

The ISP vide email dated 17.02.2023 furnished the cost breakup of aforesaid major costs forming part of preliminary expenses as under:

**Personnel Costs**

(₹ in crores)								
<b>Particulars</b>	<b>Nov-22</b>	<b>Dec-22</b>	<b>Jan-23</b>	<b>Feb-23</b>	<b>Mar-23</b>	<b>Apr-23</b>	<b>May-23</b>	<b>Total</b>
Salaries cost	0.16	0.23	0.40	0.44	0.49	0.71	0.75	<b>3.19</b>
Staff Activities (incl. Staff transportation and Training)	-	0.00	0.00	0.00	0.00	0.02	0.90	<b>0.93</b>
Recruitment Fees	0.02	-	0.35	-	-	-	-	<b>0.37</b>
	<b>0.18</b>	<b>0.23</b>	<b>0.75</b>	<b>0.45</b>	<b>0.49</b>	<b>0.73</b>	<b>1.65</b>	<b>4.49</b>

**IT Operating Costs**

<b>Particulars</b>	<b>₹ in crores</b>
Upfront Windows server license expense	0.03
Cabling license expense	0.21
Passive Networking on site	0.14
VLAN Activation and Use (BIAL Assistance)	0.24
WIFI Activation Expense	0.02
Conf Room with TV & Audio System	0.01
FAX services (BIAL Assistance)	0.01
Radio Communications (BIAL Assistance)	0.15
FIDS services (BIAL Assistance)	0.01
<b>Business App Installation Operating Expenses</b>	
• OPS -Warehouse Monetization	0.21

• OPS -SLA Management CQC	0.13
• OPS -Others	0.13
• OPS -Cool Temperature	0.13
• Payroll	0.13
• T&A	0.13
• Pulse	0.13
• SITA Prepare	0.13
• PMP and others BI	0.13
Transitional Services Costs	2.13
<b>Total IT OPEX cost</b>	<b>4.15</b>

#### **Interest on loan –WFS Global**

Particulars	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23
Loan Drawdown Amount	3.82	5.65	-	51.71	47.82	-	-
Loan Outstanding Amount	3.82	9.47	9.47	61.18	109.00	109.00	109.00
Interest	0.03	0.07	0.07	0.46	0.82	0.82	0.82
<b>Cumulative Interest</b>							<b>3.10</b>

The Authority further notes from the information submitted by the WFSBPL that the interest of ₹ 3.10 crores for the period Nov 2022 to May 2023 on the loan availed from parent company has been included in Preliminary expenses. The Authority notes from the documents furnished by the ISP that the tenure of the loans indicated above are being availed by the ISP is more than 12 months and the aforesaid loans are primarily meant to finance CAPEX proposed for the Control Period. Accordingly, the same is not qualifying for a working capital loan. Therefore, the Authority proposes to exclude interest amount of ₹ 3.10 crores from OPEX proposed for the First Control Period.

In view of the above, the Authority proposes to consider the preliminary expenses up to COD amounting to ₹ 12.25 (₹15.35 - ₹ 3.10) crores in the first year i.e. FY 2023-24.

5.4.11 **Interest Expenses:** The authority notes that yearly interest liability on term loans from FY 2023-24 to FY 2027-28 has been considered by WFSBPL as part of its operating costs and charged off to projected Profit & Loss Account in the respective years of the First Control Period. The Authority proposes to consider interest expenses in Profit & Loss statement only and same will not be made part of ARR calculations.

5.4.12 Based on review and analysis of operating costs projected by the ISP in its MYTP, the Authority proposes to consider OPEX for WFSBPL for the First Control Period as per Table given below:

**Table 20: OPEX proposed by the Authority in respect of WFSBPL for the First Control Period**

(₹ in crores)

Particulars	(₹ in Crores)						
	2023-24# (In year)	2023-24 (Annual.)	2024-25	2025-26	2026-27	2027-28	Total
<b>Revenue</b>	121.09	145.30	174.84	206.66	242.22	284.01	1028.82
Payroll Cost	26.78	32.13	39.2	45.47	52.75	61.71	225.9
Admin & General Cost	12.72	15.26	16.31	17.43	18.63	19.91	85.00
Concession Fees	36.33	43.59	52.45	62.00	72.67	85.2	308.65
Facility Rental Costs	21.58	25.9	27.19	28.55	29.98	31.48	138.78
Marketing and Branding costs	1.21	1.45	1.75	2.07	2.42	2.84	10.29
Custodianship Costs	0.35	0.42	0.42	0.42	0.42	0.42	2.03
IT Costs	5.88	7.06	7.55	8.08	8.64	9.25	39.4
Consumables	1.4	1.69	1.88	2.09	2.33	2.59	10.29
R & M Cost	6.77	8.12	8.69	9.3	9.95	10.65	45.37
Utility Cost	3.13	3.76	4.19	4.66	5.19	5.78	22.95
Preliminary expenses	12.25	12.25	-	-	-	-	12.25
<b>Total</b>	<b>128.4</b>	<b>151.63</b>	<b>159.63</b>	<b>180.06</b>	<b>202.98</b>	<b>229.83</b>	<b>900.91</b>

\*Based on the Revenue computed by the Authority.

#Cost for 10 months only.

**5.5 Authority's Proposal relating to OPEX for First Control Period**

Based on the material before it and based on its analysis, the Authority proposes to consider the OPEX projected by WFSBPL for the First Control Period as per Table 20.



## **CHAPTER-6: AIR FREIGHT STATION (AFS)**

### **6.1 Introduction**

6.1.1 Ministry of Civil Aviation (MoCA), in order to strengthen Air Cargo Logistics Infrastructure in the Country, vide OM no. AV.13011/03/2013-ER dated 28<sup>th</sup> October, 2014 issued Policy guidelines on 'Air Freight Station' (AFS) to create an off-airport common user facility equipped with fixed installations of minimum requirements and offering services for handling International Air Cargo in the form of Air Freight Stations with a mandate to enable the Cargo Industry as follows:

- i. Off-Airport common user facility equipped with fixed installations of minimum requirements and offering services for handling and temporary storage of import/ export goods, loaded and empty Unit Load devices (ULDs) and cargo in bulk/loose for outright export
- ii. Create an enabling environment for promoting International Air Cargo operations by reaching out to hinterland regions of the country besides de-congesting the congested Air Cargo terminals in some gateway International Airports that face high dwell time.
- iii. Authorizing some of the ICDs to cater to the International Air Cargo operations, the existing facilities in these ICDs, could be fully utilized.

The Policy document also emphasizes the following primary functions to be performed at Air Freight Station:

- a. Receipt of Export cargo for processing and to make the cargo "Ready for Carriage" condition, including Unit Load Device (ULD), building of export cargo and scanning of Cargo. While ULDs will be the ideal mode of handling cargo for and from AFS, export/import consignments both in palletized /ULD and bulk, loose form shall also be facilitated
- b. Transit operations by Road to and from serving Airport
- c. All Customs related requirements for import and exports including inspection of cargo wherever required
- d. Unitization of Cargo
- e. Temporary storage of Cargo and Unit Load Device (ULDs)
- f. Re-building of ULDs of export cargo
- g. De-Stuffing of Import Cargo
- h. Storage, Examination, Packing and Delivery of Import Cargo
- i. Auction/Disposal of 30 days old uncleared Import Cargo
- j. Maintenance and Repair of ULDs.

6.1.2 The policy guidelines governing Air Freight Station would be common and binding on all stakeholders concerned in the supply chain of International Air Cargo operations such as Airlines, Air Cargo Terminal operators, Airport Operators, Freight Forwarders / Customs Brokers, Exporters / Importers and all regulatory organizations.

6.1.3 The Authority is conscious of MoCA's policy initiative on AFS, which has a larger national intent to strengthen and develop air cargo logistics in the country and same is expected to reduce the bottlenecks in air-cargo logistics and help in ease of doing business, particularly for exporters. AERA supports the progressive step taken by the Govt. and feels that AFS Cargo needs to be incentivized by way of lower charges vis-à-vis rates applicable to normal cargo (Cargo directly received by the Cargo Terminal Operator).

6.1.4 The Authority has observed that WFSBPL in its initial MYTP proposal did not submit proposed

tariff rates for Cargo originating from approved AFS operator. Accordingly, the Authority asked the ISP to consider separate Tariff rates for BUPs pertaining to the approved AFS. WFSBPL, vide email dated 23.03.2023 submitted composite Tariff for Built up Pallets (BUPs) pertaining to AFS cargo as indicated below:

(₹/ Unit)

Sl. No.	BUP Charge - General Cargo	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
1	BUP Charge (upto LD3)	2200/unit	2875/unit	3725/unit	4475/unit	5375/unit
2	BUP Charge (above LD3 - lower deck pallet)	4400/unit	5750/unit	7450/unit	8950/unit	10750/unit
3	BUP Charge (above LD3 - main deck pallet)	6600/unit	8625/unit	11175/unit	13425/unit	16125/unit
<b>BUP Charge - Other than General Cargo</b>						
4	BUP Charge (upto LD3)	3300/unit	4300/unit	5600/unit	6725/unit	8100/unit
5	BUP Charge (above LD3 - lower deck pallet)	6600/unit	8600/unit	11200/unit	13450/unit	16200/unit
6	BUP Charge (above LD3 - main deck pallet)	9900/unit	12900/unit	16800/unit	20175/unit	24300/unit

- 6.1.5 The Authority notes that proposed TSP charges for BUPs (General cargo pertaining to AFS) indicated above when compared to TSP rates on per kg basis for normal cargo (cargo received directly by the CTO at cargo terminal) are lower by 18%, except Sl. no. 3 & 6, where the proposed TSP rates for BUP cargo are lower by 41%.
- 6.1.6 The Authority observed that ISP has not proposed separate TSP charges for Import BUPs. Therefore, in line with TSP charges proposed for Export BUPs, separate TSP charges for AFS Import BUPs have been proposed by the Authority in the Tariff Rate Card (Annexure IV) for the stakeholders' consultation.
- 6.1.7 The Authority, taking cognizance of intent of MoCA's AFS Policy dated 28.10.2014 to encourage the concept of AFS Cargo in the country as step towards improvement of air cargo logistics in the country, proposes to adopt at least 30% lower TSP charges for BUPs/ ULDs pertaining to approved AFS. Accordingly, the Authority proposes 30% lower TSP charges in respect of General Cargo and other than General Cargo BUPs falling under the category of 'upto LD3' & 'above LD3 – lower deck pallets' (Sl. no. 1, 2, 4 & 5).
- 6.1.8 The Authority further notes that ISP has not proposed separate BUP charges pertaining to AFS in case of Imports. The Authority, in line with its proposal for approved AFS BUPs for Export Cargo, proposes 30% lower TSP charges for BUPs/ ULDs pertaining to approved AFS for Import Cargo.
- 6.1.9 The Tariff rates proposed by the Authority pertaining to BUPs/ ULDs in respect of approved AFS for Stakeholders' consultation are contained in **Annexure – IV**.
- 6.1.10 The Authority invites specific views/ comments of the Stakeholders on the proposal of the Authority regarding lower TSP charges proposed for AFS Cargo, particularly considering that AFS is a relatively new concept in Indian Civil Aviation. The Authority shall consider the views/ suggestions received from the Stakeholders during the consultation process before issuing the Tariff Order.

## CHAPTER 7: AGGREGATE REVENUE REQUIREMENT (ARR)

### 7.1 ARR projected by WFSBPL for the First Control Period

7.1.1 As per MYTP submission, WFSBPL has projected Aggregate Revenue Requirement (ARR) for the First Control Period as per Table given below:

**Table 21: Aggregate Revenue Requirement submitted by WFSBPL for the First Control Period**

(₹ in Crores)						
Particulars	2023-24 <sup>#</sup>	2024-25	2025-26	2026-27	2027-28	Total
RAB	127.83	123.04	113.59	104.37	95.40	
FRoR	16.83%	17.07%	17.31%	17.55%	17.55%	
Return on RAB (A)	18.45	21.01	19.67	18.32	16.75	94.20
<b>OPEX (B)</b>	101.91	117.89	131.40	146.93	165.05	663.18
Depreciation (C)	10.57	10.65	10.75	10.90	11.11	53.99
Concession Fees based on ARR (D)	58.94	67.58	72.96	83.65	99.62	382.76
Tax (E)	-	-	-	10.31	30.44	40.75
Return on SD (F)	5.83	7.00	7.00	7.00	7.00	33.83
Interest on Working Capital (G)	0.76	1.13	1.43	1.73	2.10	7.15
<b>Aggregate Revenue Requirement H=(A+B+C+D+E+F+G)</b>	<b>196.47</b>	<b>225.26</b>	<b>243.21</b>	<b>278.84</b>	<b>332.07</b>	<b>1275.85</b>

<sup>#</sup>figures for 10 months only.

### 7.2 Authority's Examination on ARR for the First Control Period:

7.2.1 The Authority notes that WFSBPL has computed ARR considering Interest on Working Capital, which is not consistent with AERA's CGF Guidelines, 2011. It is observed that the ISP has not computed Present Value (PV) of ARR worked out for the First Control Period. Further, the Authority observes that the ISP has considered separate FRoR for each Tariff Year of the Control Period, which is also not consistent with the AERA's formula for ARR.

7.2.2 The Authority from the WFSBPL's submission observes that ISP has availed an initial loan of Rs. 109.00 crores, drawn in tranches starting from November 2022 up to March 2023. In addition, another loan of Rs. 89.09 crores is also projected to be taken by the ISP during FY 2023-24. In respect of loan of Rs. 109 crores, ISP has considered rate of interest @ 9.06% for FY 2022-23. For subsequent years, ISP has considered a yearly increase in rate of interest @ 0.5% p.a.

The Authority, sought basis of the rate of interest on loan considered by the ISP, which is projected to increase annually @ 0.5 %. In response thereto, WFSBPL has submitted that Interest rate per annum is the prevailing yield of the Government of India Securities (GSEC), corresponding to a maturity of the loan plus margin of "1.53%", and the same is in line with External Commercial Borrowings (ECB) Guidelines of the RBI. WFSBPL further estimates that prevailing yield of the GSEC to increase @ 0.5% per annum, from the end of 2023-24 to the end of 2026-27, based on the current trend of interest rates in India.

The Authority, notes that ISP assumes that yield on GSEC, in future, will increase in a linearly in upward direction @ 0.5% p.a., however, the same is not supported with any historical data to back assumptions. The Authority has reviewed the historical trend of GSEC yield for the maturity period of

10 years from 2012 to 2022 available at RBI website. It is observed that yield on GSEC has shown a general downward trend, i.e. from 8.23% in 2012 to 6.82% in 2022. The average GSEC yield for 10 years maturity period comes to 7.50%.

Period	G-SEC Yield %
February, 2012	8.23
March, 2013	7.91
February, 2014	8.86
February, 2015	7.77
February, 2016	7.77
February, 2017	7.12
February, 2018	7.64
March, 2019	7.37
February, 2020	6.65
February, 2021	6.34
March, 2022	6.82

The Authority feels that GSEC yield may fluctuate in a short term, however, on a long-term perspective GSEC yield is expected to follow historical trend. Therefore, the Authority is of the view that yield on GSEC in future may not move only in upward direction, as assumed by the ISP. In view of the above, the Authority, for the purpose of computation of FRoR, proposes to consider the Cost of Debt @ 9.56%, based on the cost of debt considered by the ISP for the first tariff year i.e. FY 2023-24.

As regard to equity share of JV partners, ISP submitted that SPRH agreement provides for a maximum equity infusion to the tune of ₹ 38.46 crores by both JV partners together. The Authority notes from MYTP (Form F2) of WFSBPL that for the First Control Period, ISP has considered total equity of ₹ 36.08 crores, including share of Airport Operator. The Authority proposes to consider Cost of Equity @ 14% for the First Control Period, which is in line with the AERA's consistent approach for considering Cost of Equity for ISPs.

Considering the above, the Authority proposes to consider FRoR @ 10.31% for computation of ARR in respect of WFSBPL for the First Control Period as per Table given below:

**Table 22: FRoR calculated by the Authority in respect of WFSBPL for the First Control Period**

Particulars	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
Equity (₹ in crores) (A)	36.08	36.08	36.08	36.08	36.08
Debt (₹ in crores) (B)	188.42	188.42	179.59	168.03	156.47
Total (Debt + Equity) (₹ in crores) (C) = (A+B)	224.50	224.50	215.67	204.11	192.55
Gearing (G) = (B/C)	83.93%	83.93%	83.27%	82.32%	81.26%
Cost of Equity (K <sub>e</sub> )	14.00%	14.00%	14.00%	14.00%	14.00%
Cost of Debt (K <sub>d</sub> )	9.56%	9.56%	9.56%	9.56%	9.56%
Weighted Average Gearing (WG) = $\{\sum_{T=1}^5 (C_T * G_T) / \sum_{T=1}^5 C_T\}$	83.00%				

FRoR $((WG * K_d) + (1 - WG) * K_e)$	10.31%
---	--------

7.2.3 The Authority observes that the ISPs bring different mix of debt and equity, which leads to considerable variation in the Fair Rate of Return. The Authority will analyze this issue in future and may rationalize and shift to notional gearing ratio, for the computation of FRoR.

7.2.4 The Authority, after review and analysis of various regulatory building blocks, as discussed in previous chapters has computed Aggregated Revenue Requirement for WFSBPL in respect of First Control Period as per Table given below:

**Table 23: ARR proposed to be considered for WFSBPL by the Authority for the First Control Period**

(₹ in Crores)

Particulars	2023-24*	2024-25	2025-26	2026-27	2027-28	Total
Average RAB (Refer Table 13)	66.56	128.21	118.51	109.07	99.90	
Return on RAB @ 10.31% (A)	6.86	13.22	12.22	11.25	10.30	53.84
O&M Expenses (B) (Refer Table 20)	92.07	107.18	118.07	130.31	144.63	592.26
Concession Fees (C) (Refer Table 20)	36.33	52.45	62.00	72.67	85.20	308.65
Return on SD of ₹ 50 crores @ 5% (D)	2.08	2.50	2.50	2.50	2.50	12.08
Depreciation (E) (Refer Table 11)	5.28	10.89	10.99	11.12	11.31	49.59
Tax @ 25.17% (F) (Refer Table 28)	-	-	-	-	-	-
<b>Aggregate Revenue Requirement (A+B+C+D+E+F) = (G)</b>	<b>142.62</b>	<b>186.24</b>	<b>205.77</b>	<b>227.85</b>	<b>253.94</b>	<b>1016.43</b>
PV Factor at @ 10.31% (H)	1.00	0.91	0.82	0.74	0.68	
<b>PV of ARR (I) = (G*H)</b>	<b>142.62</b>	<b>168.83</b>	<b>169.11</b>	<b>169.74</b>	<b>171.50</b>	<b>821.81</b>
Regulated Revenue at Prevailing Tariff for AISATS	97.12	127.17	137.32	148.25	160.01	669.86
Revenue from Non-Regulated Services	4.55	5.46	5.46	5.46	5.46	26.39
Total Revenue at Prevailing Tariff	101.67	132.63	142.78	153.71	165.47	696.25
<b>Tariff Increase % proposed by the Authority</b>	<b>20%</b>	<b>11%</b>	<b>10%</b>	<b>9%</b>	<b>9%</b>	
Regulated Revenue after Tariff increase	116.54	169.38	201.20	236.76	278.55	1002.43
Revenue from Non-Regulated Services	4.55	5.46	5.46	5.46	5.46	26.39
<b>Total Revenue</b>	<b>121.09</b>	<b>174.84</b>	<b>206.66</b>	<b>242.22</b>	<b>284.01</b>	<b>1028.82</b>
<b>PV of Total Revenue</b>	<b>121.09</b>	<b>158.50</b>	<b>169.84</b>	<b>180.45</b>	<b>191.81</b>	<b>821.69</b>

\* Figures for 10 months only.

7.2.5 The Authority has computed PV of ARR as ₹ 821.81 crores in respect of WFSBPL for the First Control Period as indicated in the Table above.

7.2.6 The Authority notes that one Time Tariff increase for the ISP to meet the ARR for the First Control Period works out at 47% over the prevailing Tariff.

7.2.7 The Authority, considering that the aviation sector is gradually recovering from the aftermath of Covid-19 pandemic and in order to avoid onetime steep increase in Tariff, proposes to stagger the

Tariff increase for the First Control Period as per table stated above instead of allowing one-time increase.

7.2.8 Accordingly, the Authority, based on the its computation of ARR for WFSBPL for the First Control Period, proposes following % increase in Tariff for regulated Cargo Handling Services, over the prevailing tariff as applicable to incumbent operator:

- 20% increase for FY 2023-24 (w.e.f. 24.05.2023)
- 11% increase for FY 2024-25
- 10% increase for FY 2025-26
- 9% increase for FY 2026-27 & FY 2027-28

The Tariff Rate Card proposed by the Authority for WFSBPL for the First Control Period is placed at **Annexure-IV**.

7.2.9 The Authority, considering that the ISP is a major global player in the cargo handling business, expects news cargo operator to implement best global practices at their Bengaluru operations and incur CAPEX in an efficient manner as per the capitalization schedule. Further, the ISP is also expected to optimize the OPEX for the First Control Period to bring in efficiency in operations, in the overall interest of all the Stakeholders.

### **7.3 Authority's Proposals regarding Aggregate Revenue Requirement for the First Control Period**

Based on the material before it and its analysis, the Authority proposes the followings:

7.3.1 To consider the FRoR in respect of WFSBPL for the First Control Period as per Table 22.

7.3.2 To consider the ARR in respect of WFSBPL for the First Control Period as per Table 23.

7.3.3 To consider the Tariff for Cargo Handling Services in respect of the WFSBPL for the First Control Period as per **Annexure-IV**.

## CHAPTER 8: REVENUE FROM OPERATIONS, PROFITABILITY & TAXATION

### 8.1 WFSBPL's submissions on projected Profitability for the First Control Period

8.1.1 WFSBPL has forecasted the following revenue for the First Control Period based on the volumes as proposed by WFSBPL at current Tariffs, as applicable to the incumbent Cargo concessionaire at KIAB.

**Table 24: Revenue Projected for the First Control Period as per WFSBPL before the proposed Tariff increase**

(₹ in crores)						
Particulars	FY 2023-24 (10 months)	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	Total
Cargo Volume	99,656	1,30,948	1,43,388	1,57,010	1,71,926	7,02,928
TSP Revenue	38.90	51.11	55.97	61.29	67.11	274.38
Airlines fee	24.51	32.20	35.26	38.61	42.28	172.86
Demurrage Revenue	24.37	32.02	33.31	34.55	35.73	159.98
Other Revenue	4.55	5.46	5.46	5.46	5.46	26.39
<b>Total</b>	<b>92.32</b>	<b>120.79</b>	<b>129.99</b>	<b>139.90</b>	<b>150.57</b>	<b>633.57</b>

8.1.2 WFSBPL, while projecting Revenues has considered 5% drop in demurrage revenue per annum from FY 2025-26 onward, on account of expected improvement in operating efficiency after integration of the station into WFS' network.

8.1.3 As per the WFSBPL, without tariff increase, their profitability will be (-) 50% for the First Control period.

8.1.4 Further, in order to achieve 8% Return on Revenue (Average PAT margin for First Control Period), WFSBPL has proposed the following % age tariff increase in the existing rates of present incumbent as under:

**Table 25: Percentage increase in tariffs proposed by WFSBPL for the First Control Period**

Particulars	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
TSPs (incl. Demurrage Charges)	60.0%	30.0%	30.0%	20.0%	20.0%
Airline Fees	10.0%	4.4%	4.4%	4.4%	4.4%

8.1.5 Based on the proposed Tariff increase indicated in the table above, WFSBPL has submitted their proposed Tariff Rate Card for the First Control Period as per **Annexure-III**. The ISP has further submitted the projected Revenue and Profitability Statement for the First Control Period, after considering the proposed Tariff increase, as per the following table:

**Table 26: Projected Profitability Statement as per WFSBPL after considering the proposed tariff increase**

(₹ in crores)

Particulars	FY 2023-24 (10 months)	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	Total
TSP Revenue	62.24	106.32	151.34	198.86	261.31	780.07
Airlines fee	24.51	33.62	38.43	43.93	50.22	190.71
Demurrage Revenue	38.99	66.59	90.06	112.11	139.13	446.87
Other Revenue	4.55	5.46	5.46	5.46	5.46	26.37
<b>Total</b>	<b>130.28</b>	<b>211.99</b>	<b>285.29</b>	<b>360.36</b>	<b>456.11</b>	<b>1,444.03</b>
OPEX	86.56	117.89	131.40	146.93	165.05	647.83
Revenue sharing/ Concession fee	39.08	63.60	85.59	108.11	136.83	433.21
Depreciation	10.57	10.65	10.75	10.90	11.11	53.99
Preliminary Expenses	15.35	-	-	-	-	15.35
Interest	21.65	27.15	27.92	28.01	27.10	131.84
<b>Total Cost</b>	<b>173.21</b>	<b>219.29</b>	<b>255.66</b>	<b>293.95</b>	<b>340.09</b>	<b>1282.22</b>
<b>PBT</b>	<b>-42.93</b>	<b>-7.3</b>	<b>29.63</b>	<b>66.41</b>	<b>116.02</b>	<b>161.81</b>
<b>Taxation</b>	<b>-10.81</b>	<b>-1.84</b>	<b>7.46</b>	<b>16.72</b>	<b>29.20</b>	<b>40.73</b>
<b>PAT</b>	<b>-32.14</b>	<b>-5.47</b>	<b>22.17</b>	<b>49.70</b>	<b>86.81</b>	<b>121.08</b>
<b>PAT %</b>	<b>-25%</b>	<b>-3%</b>	<b>8%</b>	<b>14%</b>	<b>19%</b>	
<b>Average PAT %</b>	<b>8%</b>					

*#figures for 10 months only.*

## **8.2 Authority's Examination on projected Revenue from Operations, Profitability and Taxation:**

8.2.1 The Authority notes that as per Section 115BAA introduced by the Government of India through the Taxation (Amendment) Ordinance, 2019 on 20.09.2019, provides option to a Domestic company to pay corporate tax at lower rate of 22% (plus applicable surcharge and cess, where the total turnover for Previous Year 2017-18 does not exceeds ₹ 400 Crore), as opposed to normal tax rate of 30%/ 25% (plus applicable surcharge and cess), w.e.f. Assessment Year 2020-21 subject to other precedent conditions.

The Authority observes that WFSBPL has considered corporate tax @ 25.17% on profit before tax and the Authority proposes to consider the same rate of tax for the First control period as proposed by the ISP. The Authority further observes from the MYTP submission that ISP has not computed Present Value (PV) of ARR and PV of Revenues at current Tariff & after Tariff increase; accordingly, the percentage increase in Tariff proposed by the ISP seems higher.

8.2.2 The Authority notes that WFSBPL has proposed lower % Tariff increase for Airlines, as compared to the % Tariff increase proposed for Shippers/Agents. The Authority feels that CAPEX & OPEX incurred by cargo operator for the improvement of infrastructure and improving efficiency of cargo handling operations is enjoyed by all the users, including airlines. It would not be appropriate to



burden the Shippers/Agents with higher % Tariff increase (in respect of TSP etc.) vis-à-vis % Tariff increase proposed for the services availed by the Airlines.

In view of the foregoing and to maintain balance in the interests of all the Users, the Authority proposes to consider uniform % tariff increase for all users of cargo handling services, which is also in line with AERA's consistent approach regarding uniform rates of Tariff increase for all the services provided by the ISP.

8.2.3 The Authority, considering its estimated Cargo Volumes for WFSBPL for the First Control Period as per Table 7 (under Chapter 3) proposes to consider projected Revenues for ISP, at prevailing Tariff, as per Table given below:

**Table 27: Revenue from Regulated Services at prevailing Tariff for the First Control Period as per the Authority**

(₹ in crores)

Particulars	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	Total
Cargo Volume considered by the Authority	1,10,255	1,44,386	1,58,102	1,73,122	1,89,569	7,75,434
TSP	42.89	51.47	56.35	61.71	67.58	302.54
Airlines Fee	27.03	32.43	35.50	38.88	42.57	190.60
Demurrage	26.87	32.24	35.31	36.73	38.10	176.40
Other Revenue	4.55	5.46	5.46	5.46	5.46	26.39
<b>Revenue Projected at existing rate for volume proposed by Authority</b>	<b>101.34</b>	<b>121.60</b>	<b>132.63</b>	<b>142.78</b>	<b>153.71</b>	<b>695.92</b>

8.2.4 The Authority notes that projected revenue for WFSBPL in respect of the first control period (at prevailing Tariff) is not sufficient to meet ARR requirement for the ISP. Considering the above, the Authority proposes the following % increase in the tariffs for the First Control Period in respect of WFSBPL:

**Table 28: Tariff increase (%age) proposed by the Authority for the First Control Period**

Particulars	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
Proposed Tariff increase (in %age) by the Authority	20%	11%	10%	9%	9%

8.2.5 Accordingly, the Authority proposes to consider the Profitability for WFSBPL (after proposed Tariff increase) for the First Control Period as per table below:

**Table 29: Profitability Statement computed by the Authority in respect of WFSBPL (after proposed Tariff increase) for the First Control Period**

(₹ in crores)

Particulars	FY 2023-24 (10 months)	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	Total <sup>#</sup>
TSP Revenue	51.64	75.06	90.42	107.93	128.81	453.87
Airlines fee	32.54	47.29	56.96	67.99	81.15	285.94
Demurrage Revenue	32.35	47.03	53.81	60.84	68.58	262.62
Other Revenue	4.55	5.46	5.46	5.46	5.46	26.39
<b>Total Revenue</b>	<b>121.09</b>	<b>174.84</b>	<b>206.66</b>	<b>242.22</b>	<b>284.01</b>	<b>1028.82</b>
OPEX*	<b>92.07</b>	<b>107.18</b>	<b>118.07</b>	<b>130.31</b>	<b>144.63</b>	<b>592.26</b>
Revenue sharing/	36.33	52.45	62.00	72.67	85.20	308.65

Concession fees						
Depreciation	5.28	10.89	10.99	11.12	11.31	49.59
Interest	15.06	19.02	19.50	19.29	18.00	90.87
<b>Total Cost</b>	<b>148.74</b>	<b>189.54</b>	<b>210.55</b>	<b>233.39</b>	<b>259.14</b>	<b>1,041.37</b>
<b>PBT</b>	<b>-27.65</b>	<b>-14.70</b>	<b>-3.89</b>	<b>8.83</b>	<b>24.87</b>	<b>-12.54</b>
Taxation <sup>#</sup>	-	-	-	-	-	-
<b>PAT</b>	<b>-27.65</b>	<b>-14.70</b>	<b>-3.89</b>	<b>8.83</b>	<b>24.87</b>	<b>-12.54</b>

*\*Excluding return on Security Deposit.*

*<sup>#</sup>Nil Tax provision in FY 2026-27 & FY 2027-28 due to anticipated losses in previous years.*

8.2.6 From the above table, the Authority notes that in the initial years of the control period, ISP is projected to have negative profitability, primarily on account of preliminary expenses & depreciation resulting from significant CAPEX in first year of control period. However, it is observed that ISP is expected to significantly improve profitability from FY 2026-27 onward & generate surplus.

8.2.7 The Authority expects WFSBPL to bring efficiency in executing the CAPEX and adhere to the committed timeline. Further, the ISP is also expected to optimize the OPEX proposed for the First Control Period and bring in global best practices in respect of Cargo Handling Services, to improve overall operating efficiency, in the interest of all the Stakeholders.

### **8.3 Authority's Proposals regarding Revenue for the First Control Period**

8.3.1 Based on the material before it and its analysis, the Authority proposes to consider total projected Revenue (after proposed Tariff increase) for the First Control Period as per Table 29.

## **CHAPTER 9: SUMMARY OF AUTHORITY'S PROPOSALS**

The below mentioned summary provides the Authority's proposals relating to relevant chapters regarding the tariff determination for WFSBPL, providing Cargo Handling Services at Kempegowda International Airport, Bengaluru, for Stakeholders' Consultation purpose:

<b>Chapter</b>	<b>Para</b>	<b>Summary of Authority's Proposals</b>	<b>Page No.</b>
<b>Chapter No.2</b>	<b>2.8</b>	The Authority considers that the Cargo Handling Service provided by WFSBPL at KIA, Bengaluru is ' <b>Material but Competitive</b> '. Therefore, the Authority proposes to determine the Tariff for the First Control Period based on ' <b>Light Touch Approach</b> '.	<b>9</b>
<b>Chapter No.3</b>	<b>3.3</b>	The Authority proposes to consider the Cargo Volume for the First Control Period for WFSBPL as per Table 7.	<b>16</b>
<b>Chapter No. 4</b>	<b>4.7.1</b>	The Authority proposes to consider Additions to RAB as per Table 8.	<b>27</b>
	<b>4.7.2</b>	The Authority proposes to consider the Depreciation as per Table 11.	
	<b>4.7.3</b>	The Authority proposes to consider Average RAB as per Table 13.	
<b>Chapter No. 5</b>	<b>5.5</b>	The Authority proposes to consider the OPEX projected by WFSBPL for the First Control Period as per Table 20.	<b>40</b>
<b>Chapter No. 7</b>	<b>7.3.1</b>	The Authority proposes to consider the FRoR in respect of WFSBPL for the First Control Period as per Table 22.	<b>46</b>
	<b>7.3.2</b>	The Authority proposes to consider the ARR in respect of WFSBPL for the First Control Period as per Table 23.	
	<b>7.3.3</b>	The Authority proposes to consider the Tariff for Cargo Handling Services in respect of the WFSBPL for the First Control Period as per <b>Annexure-IV</b> .	
<b>Chapter No. 8</b>	<b>8.3.1</b>	The Authority proposes to consider Total projected revenue (after proposed Tariff increase) for the First Control Period as per Table 29.	<b>50</b>

## **CHAPTER 10: STAKEHOLDERS' CONSULTATION**

- 10.1 In accordance with the provisions of Section 13(4) of the AERA Act, the proposals contained in Chapter 8 above is hereby put forth for Stakeholders' consultation. To assist the Stakeholders in making their submissions in a meaningful and constructive manner, necessary annexures to Consultation Paper (**Annexures I to IV**) are also enclosed.
- 10.2 For removal of doubts, it is clarified that the contents of this Consultation Paper may not be construed as any Order or Direction of this Authority. The Authority shall pass an Order, in the matter, only after considering the submissions of the Stakeholders in response here to and by making such decision fully documented and explained in the tariff order in terms of the provisions of the Act.
- 10.3 The Authority welcomes written evidence-based feedback, comments and suggestions from Stakeholders on the various proposals made in Chapter 9 above, latest by **15/05/2023**.

**Secretary**  
**Airports Economic Regulatory Authority of India**  
**AERA Building, Administrative Complex**  
**Safdarjung Airport, New Delhi -110003**  
**Tel: 011-24695044-47, Fax: 011-24695048**

**(Chairperson)**

**ANNEXURE – I****Breakup of CAPEX proposed by WFSBPL in respect of CT2 and CCF for the First Control Period****Cargo Terminal - 2**

Particulars	Type	₹ in crores
<b>A - Facility Construction</b>		
Foundation (Sub Structure) Strengthening Area of Proposed Failure Footings		11.76
Super Structure Strengthening		26.32
Toilet - civil & Plumbing works (W/P, flooring, dado, Plaster, Plumbing & Sanitary etc.)		0.35
GPR Testing		0.06
50% Roof on Air Side at Ground floor level in PEB @ 75 kg per Sqm and Rate @ Rs. 145 per kg		2.20
Partition Demolition		0.27
Terrace Waterproofing		0.22
Air side sheet cladding		0.17
PU Grout		2.01
Tremix flooring with Nominal Steel		4.26
Internal Painting - OBD		1.50
Internal painting - Lustre		0.48
External Painting		0.14
New Custom Office (G+1)		0.89
Security Cabins	Infrastructure facilities	0.08
Airside entry - 1 Nos 3x5m		
Gate Shifting on Air side		0.08
Roofing Sheet		0.28
Removal of Weighing scale		0.06
New Locker Room		0.50
Replacement of Ventilators		0.05
Airside road overlay		0.34
New walls		0.17
Making cut outs for lifts		0.13
New Chain Link fencing/ partitions		0.81
Rolling Shutters		0.25
2 level car part		0.84
Modification & addition of operational area as per new layout (a)		0.14
Modification & addition of operational area as per new layout (b)		0.65
MEP - HVAC		2.78
MEP - Electrical		5.89
MEP - PHE		3.29
<b>Facility Construction Total (A)</b>		<b>66.97</b>

<b>B - MATERIAL HANDLING SYSTEM</b>	<b>Type</b>	<b>₹ in crores</b>
<b>ULD Storage</b>		
ULD Lifts	Fixture	1.60
2 Rails in meter (91 meter) (INR 100,000 per meter)	Fixture	1.46
Refurbishment of existing PCHS/ETV incl. mechanical, motor and electric	Equipment	0.98
Motor Powered Roller Deck	Fixture	0.50
Ram Protection Transfer Lane x 6 nos & Castormats	Equipment	0.20
Castor Mat [m²] 600 m2	Equipment	3.60
<b>Subtotal</b>		<b>8.33</b>
<b>Workstations</b>		
Slave Pallet Mover	Equipment	1.60
Slave Pallets	Equipment	0.70
<b>Subtotal</b>		<b>2.30</b>
<b>Bulk Storage</b>		
ASRS Stacker Crane Refurbishment including mechanical, electrical items, PLC	Equipment	0.60
ASRS Rail replacement (48 meter)	Fixture	0.48
ASRS ICT Software	Fixture	0.30
Relocation of input and output conveyor and 4 additional conveyors for ASRS	Fixture	0.40
IHP Storage Position Bulk Racks	Fixture	3.60
Funnel Empty IHP	Fixture	0.12
IHP 1.25 x 1.25 m	Equipment	0.96
Refurbishment and replacement of current bins	Fixture	0.40
<b>Subtotal</b>		<b>6.86</b>
<b>Docks</b>		
2-tonnes Floor Scale (5 additional 2 tons scales and 1 replacement)	Equipment	0.16
10- tonnes Floor Scale refurbishment	Equipment	0.07
X-Ray Machine HS 100100-2is (Manually Operated) (6)	Equipment	3.00
Hi- Volume Scanner	Equipment	1.08
<b>Subtotal</b>		<b>4.32</b>
E-Forklifts	Equipment	3.92
Shipping, Delivery, Customs (20% of ULD, Workstations, Bulk Storage, Docks)		2.58
<b>Material Handling System Total (B)</b>		<b>28.31</b>
<b>C - Other</b>		
MHS IT System Hard-&Software incl. Cam recorders, Monitors, CCTVs		0.80
Control System, PLC		0.90
Other IT Infrastructure		4.24
Other Pre-Operative Capital Expenditure		8.26
<b>Other Total (C)</b>		<b>14.19</b>
<b>CT2 Total Investment Capex (D) = (A+B+C)</b>		<b>109.47</b>

**CAPEX towards Cold Chain Facility**

Particulars	Type	₹ in crores
<b>E - Facility Construction</b>		
Area Grading		0.48
Civil works for building - Plinth area		4.52
PEB @ 85 kg per Sqm and Rate @ Rs. 145 per kg		4.79
Puff Panel Partition for Temperature control Area		0.23
Interiors - first floor area only		1.75
Elevation treatment - front façade with ACP or Glazing		0.38
Dock leveller		0.10
Section rolling shutter		0.45
Toilet - civil works (flooring, dado, partition etc		0.13
Demolition of Existing Structure @ airside & internal room		0.12
Breaking & Reconstruction of 300mm Thk Grade Slab		0.69
Grid Ceiling		0.09
Closing of windows at 1st Floor Level		0.01
Construction of Sump		0.08
Underground Fire water tank and pump room		0.94
Domestic & Flushing water tank		0.31
Entrance & Exist Gate Canopies		0.07
Security Cabins		0.07
Airside entry - 1 Nos 3x4.5m	Infrastructure facilities	0.03
Increase the ht of existing RS at docks		0.26
Terrace water proofing of existing bldg		0.15
Internal Paiting of existing bldg		0.11
External Painting of existing bldg		0.05
Chiller Platform		1.73
PQC road		0.12
Parking		0.67
Compound New - 3 sides		0.02
Chain-link fencing - air side		0.02
Motorised Openable Gates		0.30
- airside gate 1 Nos 10 X 1.8 M		0.20
Storm drain		0.08
Plumbing Domestic, Sewage, Rainwater		3.15
Landscaping		0.35
MEP costing for proposed building		1.21
MEP - HVAC		2.05
MEP - Electrical		
MEP - PHE		
<b>Facility Construction Total (E)</b>		<b>25.73</b>
<b>F - Material Handling System</b>		
<b>ULD Storage</b>		
ULD Storage Refurbishment	Equipment	0.17
<b>Subtotal</b>		<b>0.17</b>
<b>Workstations</b>		
Workstations Refurbishment	Equipment	0.25
<b>Subtotal</b>		<b>0.25</b>

<b>Docks</b>		
X-Ray Machine HS 145180-2is (Manually Operated)	Equipment	1.00
X-Ray Machine HS 100100-2is (Manually Operated)	Equipment	0.83
X-Ray and Scales Refurbishment	Equipment	0.42
<b>Subtotal</b>		<b>2.25</b>
Shipping, Delivery, Customs (20% of ULD, Workstations, Bulk Storage, Docks)		0.53
<b>Material Handling System Total (F)</b>		<b>3.20</b>
<b>Total Investment Capex for CCF (G) = (E+F)</b>		<b>28.93</b>
<b>Grand Total of Proposed CAPEX for CT2 &amp; CCF for FY 2023-24 (D+G)</b>		<b>138.40</b>
<b>SUMMARY OF CAPEX PROPOSED FOR THE FIRST CONTROL PERIOD</b>		
INFRASTRUCTURE FACILITY & MHS – CT2 (I)		92.70
CCF & MHS (II)		31.51
Others (III)		14.61
<b>Grand Total (I+II+III) (including cost of additional works relating to construction of Airside Canopy)</b>		<b>138.40</b>



# **STRUCTURAL DESIGN REVIEW REPORT**

OF

## **CARGO TERMINAL 2**



ISSUE: - 13<sup>th</sup> December 2022

REVISION: - R1

**CLIENT**



*Worldwide Flight Services*

WFS (BANGALURU) PRIVATE LIMITED

**FROM**



STRUCTWEL DESIGNERS AND  
CONSULTANTS PVT. LTD.



REALOG CONSULTING GMBH



## Contents

1. BACKGROUND OF PROJECT .....	3
2. NOMENCLATURE FOLLOWED IN THIS REPORT.....	3
3. STRUCTURAL SYSTEM:.....	3
4. DESIGN PHILOSOPHY .....	3
5. SCOPE OF WORK .....	4
6. DESIGN CRITERIA AND SPECIFICATION .....	5
7. MATERIALS OF CONSTRUCTION.....	5
8. TECHNICAL PARAMETER .....	6
9. SOIL BEARING CAPACITY:.....	6
10. UNIT WEIGHTS.....	8
11. TYPE OF LOADING.....	8
12. LOAD COMBINATIONS .....	14
13. SOFTWARE'S USED:.....	14
14. OBSERVATIONS:.....	14
15. CONCLUSIONS.....	14
16. REMEDIAL TECHNIQUES –.....	17
17. ANNEXURE – 1 .....	19
18. ANNEXURE – 2 .....	22
19. ANNEXURE – 3 .....	22
20. ANNEXURE – 4 .....	22
21. ANNEXURE – 5 .....	23



## 1. BACKGROUND OF PROJECT

M/s WFS has appointed M/s Realog/ M/s. Structwel Designers & Consultants Pvt. Ltd. to provide the consultancy works of CT2 for checking the building stability with respect to the MHS Design Capacity.

In response to the above, M/s. Structwel's team of experts & engineers visited the premises and reviewed the data shared to us by the client.

This report deals with the Structural Analysis of the CT 2 Building for the MHS Design Capacity.

## 2. NOMENCLATURE FOLLOWED IN THIS REPORT.

In this report, we are following the same nomenclature as the drawings which were shared to us.

1) The basement level at site is being referred to as the ground level in this report.

2) The ground level at site is being referred to as the 1<sup>st</sup> floor in this report.

Additionally, The Design Capacity of the MHS is referred to as the maximum current loading which can be applied to the structure via the existing MHS.

## 3. STRUCTURAL SYSTEM:

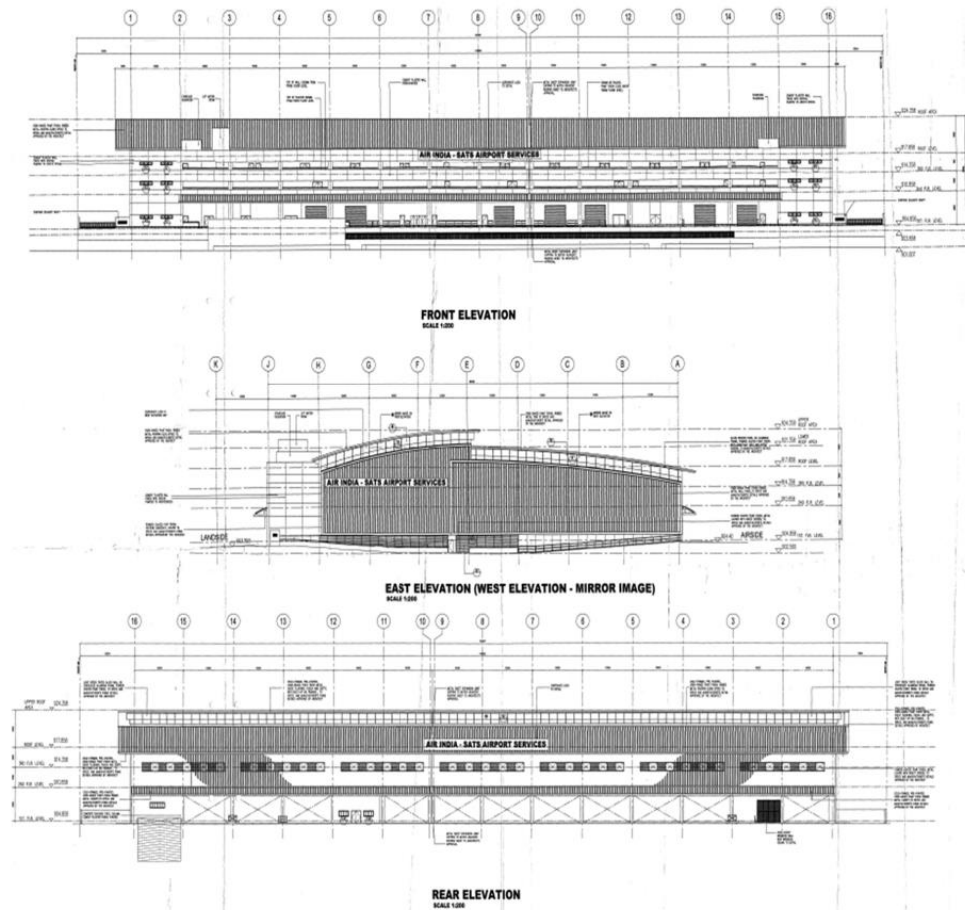
The structure was constructed in the year 2007. The superstructure is a mix of RCC (reinforced concrete) and PSC (pre-stressed concrete) with a curved sloping steel roof structure. The structure comprises of a ground floor, first floor and the part mezzanine floor. The floors, both ground floor and first floor are constructed as pre-stressed concrete slabs. Lateral loads are resisted by frame action in both directions. The floor slabs are considered as horizontal diaphragms and are capable of distributing compatible lateral displacement at floor space frame.

## 4. DESIGN PHILOSOPHY

The basic consideration in design of any structure is to arrive at an acceptable degree of safety, stability, serviceability, and durability for its intended life. It should be an



economical design with due compliance of the relevant codes of practice & specifications. All the slabs, including the ground floor are PT Slabs. Therefore it has been assumed that the ground level slab will not behave as an on-grade slab and the complete floor loads will be transferred into the columns and foundation.



## 5. SCOPE OF WORK

To carry out the structural analysis to establish the structural performance of each member under the Design Capacity for current MHS and Indian Codes.



## 6. DESIGN CRITERIA AND SPECIFICATION

The method adopted for design of all steel structure is Limit State Method in accordance with IS 800-2007 and for design of all Reinforced Concrete members of structure is Limit State Method in accordance with IS 456-2000.

### For Steel & RCC Structures:

IS 800:2007	Code of practice for General Construction in Steel
IS 456:2000	Code of practice for plain and reinforced Concrete
IS 875-1:1987	Code of practice for Design load
IS 875-2:1987	Code of practice for Design load
IS 875-3:1987	Code of practice for Wind Design load
IS 875-4:1987	Code of practice for Design load
IS 875-5:1987	Code of practice for Design load
SP 16:1980	Design aids to IS 456.
IS 1341:1964	Code of practice for Design & Installation of joints in buildings
IS 1893-1:2002	Criteria for Earthquake Resistant Design of structure
IS 2062:1999	Steel for general purposes- specification

## 7. MATERIALS OF CONSTRUCTION

The following is the basic data assumed for the analysis of the AISATS Airfreight Terminal structure.

1. Density of Concrete = 2500 kg/m<sup>3</sup>
2. Grade of Reinforcement steel = 415 MPa
3. Grade of concrete for Footings = 30 MPa
4. Grade of concrete for columns = 40 MPa
5. Grade of concrete for RCC Slabs and Beams = 35 MPa
6. Grade of concrete for PT Slabs and Beams = 35 MPa
7. Grade of Plate and rolled sections = 250 MPa
8. Grade of Hollow sections = 250 MPa (need to verify at site)





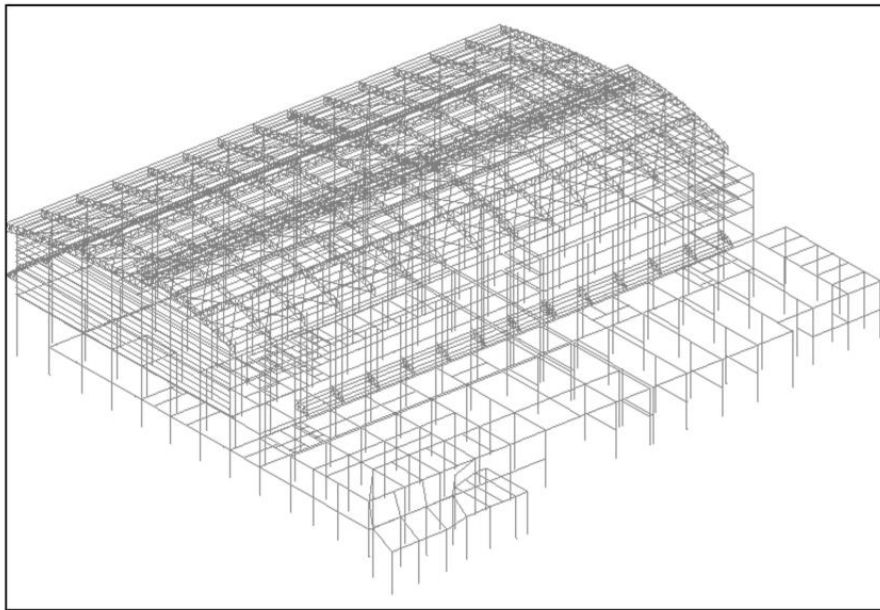
## 8. TECHNICAL PARAMETER

The structure is analysed & designed for dead loads, imposed loads, equipment loads, wind loads, Earthquake loads & various load combinations as per IS code provisions. The analysis and design of structures is carried on STAAD.Pro CONNECT Edition V22– design software with various design parameters and guidelines from various IS Codes and Handbooks.

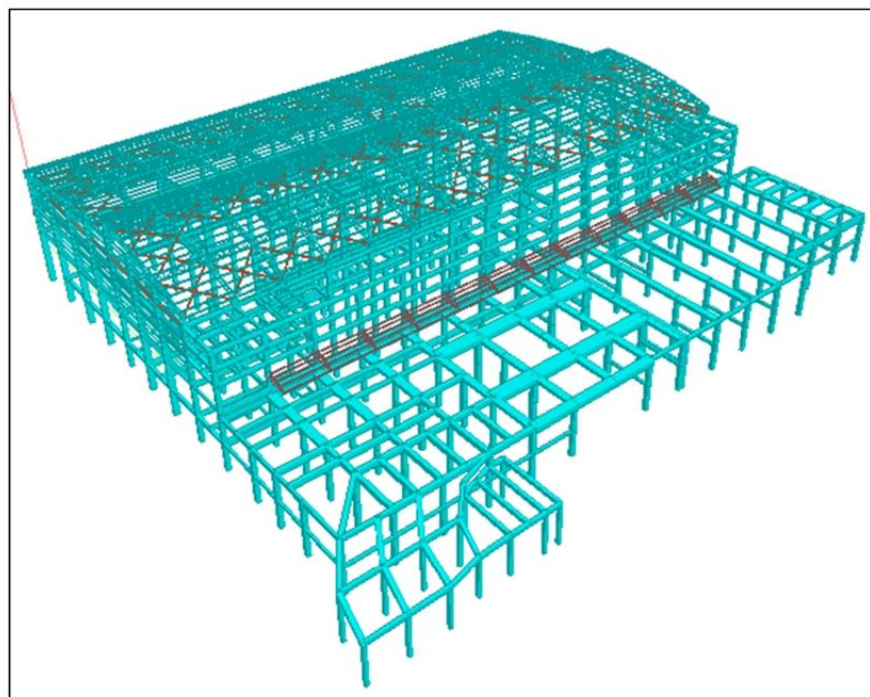
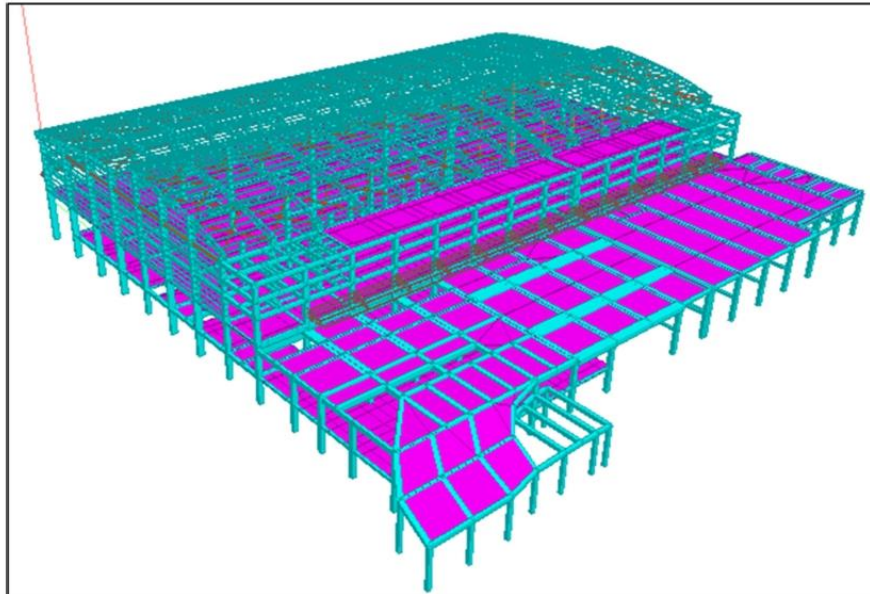
The analysis is done considering 3-D space frame structures and taking into consideration various load cases. The results of actual design requirements as per schedule have been summarized to a sheet form.

## 9. SOIL BEARING CAPACITY:

A foundation has been checked for a Soil Bearing Capacity of 35 Ton/m<sup>2</sup>, as per the Structural Drawings shared with us. The geotechnical Investigation is being done, and the same will be confirmed after.



**Figure 01: Isometric view of AISATS Airfreight Terminal Analytical model**



**Figure 02: 3D Render view of AISATS Airfreight Terminal Analytical model**



## 10. UNIT WEIGHTS

Concrete (RCC)	: 25.0 KN/m <sup>3</sup>
Concrete (PCC)	: 24.0 KN/m <sup>3</sup>
Structural steel	: 78.5 KN/m <sup>3</sup>
Brick Masonry	: 18.0 KN/m <sup>3</sup>
Earth	: 18.0 KN/m <sup>3</sup>
Water	: 10.0 KN/m <sup>3</sup>

## 11. TYPE OF LOADING

### 1. Self-Weight:

This is the load of the structure itself. As the analytical model is capable of evaluating self-weight of structure based on member data provided, only dead load due to floor finish is added.

### 2. Civil Load

This load includes Floor Finish, Service load, Partition wall load, Roof Sheet load and Solar panel load.

Sr. No	Load Type	Load Value (KN/sqm)				
		Ground Floor	First Floor	Second and Third Floor	Terrace	Roof
1	Civil Load					
	i) Floor Finish	1	i) For VNA = 2.2	1	3	-
			ii) Other Area = 1.2			
			iii) Driveway = 3			
	ii) Service Load	0.5	0.5	0.5	0.5	





	iii) Partition Wall			1		
	iv) Galvalume Sheet	-	-	-	-	0.05
	v) Solar Panel	-	-	-	-	0.2

### 3. MHS Load

This load included Equipment load for ETV, ASRS, PCHS, VNA Import Area, VNA Export Area and General Area (Slave Pallet).

The following loads have been considered on the structure due to the current MHS

Equipment	Load	References
Maximum wheel load of ETV serving 2 storage levels	210 kN	IATA Airport Handling Manual (AHM 9340-43) Edition 43
Column point load of the steel structure of the ULD storage (2 level)	126.7 kN	IATA Airport Handling Manual (AHM 9340-43) Edition 43
Maximum wheel load of ASRM (2 wheels)	100 kN	International Standard weight of Stacker Crane ASRM of 10 tons
Column point load of the steel structure of the ASRS (12 Level)	110 kN	Siemens Dwg No – AL106-004 Rev 09
Maximum wheel load of VNA forklift (4 wheels)	50 kN	Yale Specifications
VNA Export Area 1	140 kN	Godrej Dwg No – 105193.02-H-03 Rev 02
VNA Export Area 2	70 kN	Godrej Dwg No – 105193.02-H-03 Rev 02
VNA Import Area	1859 Ton	Godrej Dwg No – 105193.02-H-02 Rev



	(Total Load)	03
Slave Pallet Load (General Area)	6.8 Ton	IATA Airport Handling Manual (AHM 9340-43) Edition 43

Loading due to Office area -

1. Second Floor and Third Floor – **Design Capacity of Office Area = 2.50 KN/ Sqm**
2. Terrace Floor – **Design Capacity of Office Area = 1.50 KN/ Sqm**
3. Roof – **Design Capacity of Roof = 0.75 KN/Sq**



External & Internal Coefficient for Walls of Rectangular Clad Building: Table-5 IS875-3:1987. In design report IP considered is  $\pm 0.2$

	A	B	C	D
0 Degree	0.7	-0.25	-0.6	-0.6
90 degrees	-0.5	-0.5	0.7	-0.1

## 12. LOAD COMBINATIONS

Load Combinations are attached on Annexure 1

## 13. SOFTWARE'S USED:

1. STAAD Pro Connect V22 was used for the analysis & Design for Steel members in Building.
2. RCDC V9.1.1 was used for the design of footing.

## 14. OBSERVATIONS:

1. Since the grade is missing in the drawings shared with us, we are assuming a grade of 250 Mpa for the Structural Steel Members. Few members are not safe in design (4-5 members in single truss) requires strengthening.
2. PT slab capacities at all levels are not available in drawing and thus have not been checked. Once the drawings are provided, the same will be checked. There is a possibility that the slab also may require strengthening.



Sr No	Area Tested	Loading due to MHS Design Capacity (KN)	Member	Brief Explanation - Passed / Failed
6	General Handling area (on Ground floor and First Floor)	6.8 Ton (Slave Pallet Load)	Column	There are 195 Columns. Out of which 2 Columns have failed in design.
			Footing	There are 112 Footings. Out of which 5 Footings are failing in design.
			i) Ground Floor Beam	There are 61 beams. Out of which 58 beams are passed. And details of remaining beams are not available.
			ii) First Floor Beam	There are 211 beams. Out of which 98 beams have passed. And 15 beams are failing in design. And details of remaining beams are not available.

## 16. REMEDIAL TECHNIQUES –

There are several strengthening techniques which may be applicable to retrofit the Structure. Structwel proposes the following measures:

- Foundation strengthening is challenging and can be done with inserting piles to reduce the load on the current footings.
- Column strengthening can be done with fibre wrapping or RCC jacketing/ steel jacketing.
- Beam strengthening can be done with steel plate flitching.



**Time Line:**

Considering the 75% area of the Basement would be available for execution, we anticipate the total duration of strengthening work would be approximately 8 to 10 months.

PREPARED BY,

APPROVED BY,

**Mr. MAHADEV KOHAK**  
(Lead Design Engineer)

**Mr. ANIL BHOSALE**  
(H.O.D Structural)



## 17. ANNEXURE – 1

### Loads Combination

As per 'civil /structural design criteria' of IS 875(Part 5), IS 1893 (Part4), IS 800:2007, Load combinations for member design and foundation shall be as follows

To ensure design of all the components of the structures against the most critical condition of loads, the following combinations of loads shall be considered.

Number	Name	Description
1	EQ+X	Earthquake load in positive X direction
2	EQ-X	Earthquake load in negative X direction
3	EQ+Z	Earthquake load in positive Z direction
4	EQ-Z	Earthquake load in negative Z direction
5	WL+X	Wind load in positive X direction
6	WL-X	Wind load in negative X direction
7	WL+Z	Wind load in positive Z direction
8	WL-Z	Wind load in negative Z direction
9	INT.P	Internal Pressure (Wind)
10	DL	Dead load
11	LL	Live load

### Factored load combination for Member Design.

LOAD COMB 51 $1.5DL + 1.5LL$	LOAD COMB 69 $1.5(DL + (EQ-X))$
LOAD COMB 52 $1.5DL + 1.5(WL+X) + 1.5INT.P$	LOAD COMB 70 $1.5(DL + (EQ+Z))$
LOAD COMB 53 $1.5DL + 1.5(WL+X) - 1.5INT.P$	LOAD COMB 71 $1.5(DL + (EQ-Z))$
LOAD COMB 54 $1.5DL + 1.5(WL-X) + 1.5INT.P$	LOAD COMB 72 $0.9DL + 1.5(EQ+X)$
LOAD COMB 55 $1.5DL + 1.5(WL-X) - 1.5INT.P$	LOAD COMB 73 $0.9DL + 1.5(EQ-X)$
LOAD COMB 56 $1.5DL + 1.5(WL+Z) + 1.5INT.P$	LOAD COMB 74 $0.9DL + 1.5(EQ+Z)$
LOAD COMB 57 $1.5DL + 1.5(WL+Z) - 1.5INT.P$	LOAD COMB 75 $0.9DL + 1.5(EQ-Z)$
LOAD COMB 58 $1.5DL + 1.5(WL-Z) + 1.5INT.P$	LOAD COMB 76 $1.2(DL + LL + (WL+X))$





LOAD COMB 59 $1.5DL+1.5(WL-Z)-1.5INT.P$	LOAD COMB 77 $1.2(DL+LL+(WL+X))$
LOAD COMB 60 $0.9DL+1.5(WL+X)+1.5INT.P$	LOAD COMB 78 $1.2(DL+LL+(WL-X))$
LOAD COMB 61 $0.9DL+1.5(WL+X)-1.5INT.P$	LOAD COMB 79 $1.2(DL+LL+(WL-X))$
LOAD COMB 62 $0.9DL+1.5(WL-X)+1.5INT.P$	LOAD COMB 80 $1.2(DL+LL+(WL+Z))$
LOAD COMB 63 $0.9DL+1.5(WL-X)-1.5INT.P$	LOAD COMB 81 $1.2(DL+LL+(WL+Z))$
LOAD COMB 64 $0.9DL+1.5(WL+Z)+1.5INT.P$	LOAD COMB 82 $1.2(DL+LL+(WL-Z))$
LOAD COMB 65 $0.9DL+1.5(WL+Z)-1.5INT.P$	LOAD COMB 83 $1.2(DL+LL+(WL-Z))$
LOAD COMB 66 $0.9DL+1.5(WL-Z)+1.5INT.P$	LOAD COMB 84 $1.2(DL+LL+(EQ+X))$
LOAD COMB 67 $0.9DL+1.5(WL-Z)-1.5INT.P$	LOAD COMB 85 $1.2(DL+LL+(EQ-X))$
LOAD COMB 68 $1.5(DL+(EQ+X))$	LOAD COMB 86 $1.2(DL+LL+(EQ+Z))$
	LOAD COMB 87 $1.2(DL+LL+(EQ-Z))$

Un-factored load combination for deflection	Un-factored load combination for foundation design
LOAD COMB 151 $1.0DL+1.0LL$	LOAD COMB 200 $1.0DL+1.0LL$
LOAD COMB 152 $DL+(WL+X)+INT.P$	LOAD COMB 201 $DL+(WL+X)+INT.P$
LOAD COMB 153 $DL+(WL+X)-INT.P$	LOAD COMB 202 $DL+(WL+X)-INT.P$
LOAD COMB 154 $DL+(WL-X)+INT.P$	LOAD COMB 203 $DL+(WL-X)+INT.P$
LOAD COMB 155 $DL+(WL-X)-INT.P$	LOAD COMB 204 $DL+(WL-X)-INT.P$
LOAD COMB 156 $DL+(WL+Z)+INT.P$	LOAD COMB 205 $DL+(WL+Z)+INT.P$
LOAD COMB 157 $DL+(WL+Z)-INT.P$	LOAD COMB 206 $DL+(WL+Z)-INT.P$
LOAD COMB 158 $DL+(WL-Z)+INT.P$	LOAD COMB 207 $DL+(WL-Z)+INT.P$
LOAD COMB 159 $DL+(WL-Z)-INT.P$	LOAD COMB 208 $DL+(WL-Z)-INT.P$
LOAD COMB 160 $DL+(EQ+X)$	LOAD COMB 209 $DL+(EQ+X)$
LOAD COMB 161 $DL+(EQ-X)$	LOAD COMB 210 $DL+(EQ-X)$
LOAD COMB 162 $DL+(EQ+Z)$	LOAD COMB 211 $DL+(EQ+Z)$



LOAD COMB 163 DL+(EQ-Z)	LOAD COMB 212 DL+(EQ-Z)
LOAD COMB 164 DL+LL+(WL+X)+INT.P	LOAD COMB 213 DL+LL+(WL+X)+INT.P
LOAD COMB 165 DL+LL+(WL+X)-INT.P	LOAD COMB 214 DL+LL+(WL+X)-INT.P
LOAD COMB 166 DL+LL+(WL-X)+INT.P	LOAD COMB 215 DL+LL+(WL-X)+INT.P
LOAD COMB 167 DL+LL+(WL-X)-INT.P	LOAD COMB 216 DL+LL+(WL-X)-INT.P
LOAD COMB 168 DL+LL+(WL+Z)+INT.P	LOAD COMB 217 DL+LL+(WL+Z)+INT.P
LOAD COMB 169 DL+LL+(WL+Z)-INT.P	LOAD COMB 218 DL+LL+(WL+Z)-INT.P
LOAD COMB 170 DL+LL+(WL-Z)+INT.P	LOAD COMB 219 DL+LL+(WL-Z)+INT.P
LOAD COMB 171 DL+LL+(WL-Z)-INT.P	LOAD COMB 220 DL+LL+(WL-Z)-INT.P
LOAD COMB 172 DL+0.8LL+0.8(EQ+X)	LOAD COMB 221 DL+LL+(EQ+X)
LOAD COMB 173 DL+0.8LL+0.8(EQ-X)	LOAD COMB 222 DL+LL+(EQ-X)
LOAD COMB 174 DL+0.8LL+0.8(EQ+Z)	LOAD COMB 223 DL+1LL+(EQ+Z)
LOAD COMB 175 DL+0.8LL+0.8(EQ-Z)	LOAD COMB 224 DL+1LL+(EQ-Z)



**Tariff Rate Card proposed by WFSBPL for the First Control Period**

S.NO.	LIST OF CHARGES	FY 2023-24		FY 2024-25		FY 2025-26		FY 2026-27		FY 2027-28	
		Rs. Per KG	Minimum Rate	Rs. Per KG	Minimum Rate	Rs. Per KG	Minimum Rate	Rs. Per KG	Minimum Rate	Rs. Per KG	Minimum Rate
<b><u>(A) TSP CHARGES - INTERNATIONAL CARGO</u></b>											
<b><u>EXPORT CARGO</u></b>											
1)	Terminal, Storage and Processing Charge (TSP) – per Shipping Bill										
(a)	General Cargo	1.68	200	2.18	260	2.85	339	3.41	406	4.10	487
(b)	Special Cargo (AVI)	2.53	400	3.29	520	4.27	676	5.13	811	6.15	973
(c)	PER/DGR/VAL cargo	4.37	400	5.68	520	7.38	676	8.86	811	10.63	973
(d)	Perishable CARGO in Cold Chain Facility (PER/PIL/PEF, etc)	4.40	400	5.72	520	7.44	676	8.92	811	10.71	973
2)	Demurrage/Storage Charge (Rate per kg per 24 hours)										
(a)	General Cargo	1.34	218	1.75	284	2.27	369	2.73	444	3.27	532
(b)	Special Cargo (AVI)	2.53	420	3.29	546	4.27	710	5.13	852	6.15	1,022
(c)	PER/DGR/VAL cargo	4.37	420	5.68	546	7.38	710	8.86	852	10.63	1,022
3)	Courier Handling Charge	2.53	240	3.29	312	4.27	406	5.13	487	6.15	584
4)	Packing/Repacking/Strapping Charge	8.00 per Carton/Bag	8.00	10.40 per Carton/Bag	10.40	13.52 per Carton/Bag	13.52	16.22 per Carton/Bag	16.22	19.47 per Carton/Bag	19.47
5)	Return Cargo Charge	800.00 per AWB	800.00	1,040.00 per AWB	1,040.00	1,352.00 per AWB	1,352.00	1,622.40 per AWB	1,622.40	1,946.88 per AWB	1,946.88
6)	Airway Bill Amendment Charge	160.00 per AWB	160.00	208.00 per AWB	208.00	270.40 per AWB	270.40	324.48 per AWB	324.48	389.38 per AWB	389.38
7)	Weight/Volume Mis-Declaration Charge										
(a)	2-5% variation	2 times of applicable TSP	-	2 times of applicable TSP	-	2 times of applicable TSP	-	2 times of applicable TSP	-	2 times of applicable TSP	-
(b)	More than 5% variation	5 times of applicable TSP	-	5 times of applicable TSP	-	5 times of applicable TSP	-	5 times of applicable TSP	-	5 times of applicable TSP	-
8)	Overtime Charge (Beyond Customs Working Hrs)	80.00 per Shipping Bill	80.00	104.00 per Shipping Bill	104.00	135.20 per Shipping Bill	135.20	162.24 per Shipping Bill	162.24	194.69 per Shipping Bill	194.69
	VAL Cargo	1,600.00 per AWB	1,600.00	2,080.00 per AWB	2,080.00	2,704.00 per AWB	2,704.00	3,244.80 per AWB	3,244.80	3,893.76 per AWB	3,893.76
	<b><u>BUP Charge - General Cargo*</u></b>										
	BUP Charge (upto LD3)	2200 per	-	2875 per unit	-	3725 per	-	4475 per	-	5375 per	-

		unit				unit			unit		unit	
	BUP Charge (above LD3 - lower deck pallet)	4400 per unit	-	5750 per unit	-	7450 per unit	-	8950 per unit	-	10750 per unit	-	
	BUP Charge (above LD3 - main deck pallet)	6600 per unit	-	8625 per unit	-	11175 per unit	-	13425 per unit	-	16125 per unit	-	
	<b><u>BUP Charge - Other than General Cargo*</u></b>											
	BUP Charge (upto LD3)	3300 per unit	-	4300 per unit	-	5600 per unit	-	6725 per unit	-	8100 per unit	-	
	BUP Charge (above LD3 - lower deck pallet)	6600 per unit	-	8600 per unit	-	11200 per unit	-	13450 per unit	-	16200 per unit	-	
	BUP Charge (above LD3 - main deck pallet)	9900 per unit	-	12900 per unit	-	16800 per unit	-	20175 per unit	-	24300 per unit	-	

\*BUP not permitted for consignments with restricted articles/DG/VAL cargo.

S.NO.	LIST OF CHARGES	FY 2023-24		FY 2024-25		FY 2025-26		FY 2026-27		FY 2027-28	
		Rs. Per KG	Minimum Rate	Rs. Per KG	Minimum Rate	Rs. Per KG	Minimum Rate	Rs. Per KG	Minimum Rate	Rs. Per KG	Minimum Rate
	<b><u>IMPORT CARGO</u></b>										
1)	Terminal, Storage and Processing Charge (TSP) – per Bill of Entry										
(a)	General Cargo/Unaccompanied Baggage	8.64	200	11.23	260	14.60	338	17.52	406	21.03	487
(b)	Special Cargo (AVI)	17.28	400	22.46	520	29.20	676	35.04	811	42.05	973
(c)	PER/DGR/VAL cargo	17.28	400	22.46	520	29.20	676	35.04	811	42.05	973
2)	Demurrage/Storage Charge (Rate per kg per 24 hrs)										
(a)	General Cargo										
(i)	Flight Actual Time of Arrival (ATA) plus 48 hrs	No charge		No charge		No charge		No charge		No charge	
(ii)	Cargo cleared between 48 hrs and 96 hrs	2.64	538	3.43	699	4.40	909	5.35	1,090	6.42	1,308
(iii)	Cargo cleared between 96 hrs and 720 hrs	4.94	538	6.43	699	8.36	909	10.03	1,090	12.03	1,308
(iv)	Cargo cleared after 720 hrs	7.41	538	9.63	699	12.52	909	15.02	1,090	18.03	1,308
(b)	Special Cargo (AVI)										
(i)	Flight Actual Time of Arrival (ATA) plus 48 hrs										
		No charge		No charge		No charge		No charge		No charge	
(ii)	Cargo cleared between 48 hrs and 96 hrs	4.94	1,000	6.43	1,300	8.36	1,690	10.03	2,028	12.03	2,434

(iii)	Cargo cleared between 96 hrs and 720 hrs	9.87	1,000	12.83	1,300	16.68	1,690	20.02	2,028	24.02	2,434
(iv)	Cargo cleared after 720 hrs	14.82	1,000	19.26	1,300	25.04	1,690	30.05	2,028	36.06	2,434
(c)	PER/DGR/VAL cargo										
(i)	Flight Actual Time of Arrival (ATA) plus 48 hrs	No charge		No charge		No charge		No charge		No charge	
(ii)	Cargo cleared between 48 hrs and 96 hrs	9.87	2,040	12.83	2,652	16.68	3,448	20.02	4,137	24.02	4,965
(iii)	Cargo cleared between 96 hrs and 720 hrs	19.84	2,040	25.79	2,652	33.53	3,448	40.24	4,137	48.28	4,965
(iv)	Cargo cleared after 720 hrs	29.73	2,040	38.65	2,652	50.24	3,448	60.29	4,137	72.35	4,965
3)	Courier Handling Charge	9.70	320	12.60	416	16.39	541	19.66	649	23.60	779
4)	Airway Bill Amendment Charge	160.00 per AWB	160.00	208.00 per AWB	208.00	270.40 per AWB	270.40	324.48 per AWB	324.48	389.38 per AWB	389.38
5)	Transshipment charge										
(a)	General Cargo	3.17	200	4.12	260	5.35	338	6.42	406	7.71	487
(b)	PER/DGR/VAL Cargo	3.17	376	4.12	489	5.35	635	6.42	763	7.71	915
6)	Documentation Charges	160.00 per AWB	160.00	208.00 per AWB	208.00	270.40 per AWB	270.40	324.48 per AWB	324.48	389.38 per AWB	389.38
7)	Overtime Charges (Beyond Customer Working Hrs)										
(a)	General Cargo	320.00 per Bill of Entry	320.00	416.00 per Bill of Entry	416.00	540.80 per Bill of Entry	540.80	648.96 per Bill of Entry	648.96	778.75 per Bill of Entry	778.75
(b)	VAL Cargo	1,600.00 per AWB	1,600.00	2,080.00 per AWB	2,080.00	2,704.00 per AWB	2,704.00	3,244.80 per AWB	3,244.80	3,893.76 per AWB	3,893.76
8)	Packing/Repacking/Strapping Charge	8.00 per Carton/Bag	8.00	10.40 per Carton/Bag	10.40	13.52 per Carton/Bag	13.52	16.22 per Carton/Bag	16.22	19.47 per Carton/Bag	19.47

**Notes:**

1. Consignments of Human Remains, Coffins and Unaccompanied Baggage of the Deceased and Human eyes will be exempt from the purview of TSP charges and Demurrage Charges.
2. TSP charges applicable to Newspaper TV reel consignments shall be at 50% of applicable charges.
3. TSP charges are inclusive of forklift used for loading/offloading the cargo to/from the truck and putting cargo on customs area for examination.
4. Charges will be levied on the Gross weight or Chargeable Weight whichever is higher. Wherever there is a mis-declaration of Gross weight or Chargeable Weight, the Actual Gross weight or the Actual Chargeable Weight will be used for the charges whichever is higher.
5. Demurrage  
Export Cargo - Total free period available for export cargo would be 12 hrs. or as decided by Govt. of India from time to time.  
Import Cargo - Free period shall be 48 hrs. from segregation time or as decided by the Govt. of India from time to time.  
If the clearance is done on 3rd and 4th day from Flight segregation Time then the charges are as per 2 (A), (B) & (C) per kg per day. If the clearance is done after the 4th day of the Flight Segregation Time, the demurrage will be calculated cumulatively as under:

- a) Day of Flight Segregation Time 4th day Slab 1

- b) 5th Day - 29 days - (both days inclusive) Slab 1 & Slab 2
- c) Beyond 29 days Slab 3
- 6. All billing will be rounded off to the nearest INR 5/- as per IATA Tact rule.
- 7. Special Cargo (AVI) consists of live animals and day-old chicks.
- 8. VAL cargo includes gold bullion, currency notes, shares, share coupons, traveller's cheque, diamonds (including diamonds for industrial use) diamond jewellery watches of silver-gold platinum and items valued at USD 1000/kg and above.
- 9. For consolidation on Transshipment cargo, TSP charges will be levied to all types of cargo, in addition to Transshipment Charges mentioned above. Demurrage charges for the free period may be considered to be governed as per the instruction of Govt. of India issued from time to time.
- 10. All charges mentioned above exclude taxes which will be charged at the prevailing rates.
- 11. All charges mentioned above include the concession fees & other airport levies charged by the airport operator.
- 12. No outside labour will be allowed to handle cargo in WFSBPL Airfreight Terminal and WFSBPL Cold Chain Facility.
- 13. For BUP consignments, it is assumed that cargo arrives in unitized form, pre-screened and cleared. Any Unitization/Build-up/Palletization and X-ray screening services availed at the cargo terminal will attract the applicable charges.

## **(B) AIRLINES FEES – INTERNATIONAL CARGO**

S.NO.	LIST OF CHARGES	FY24		FY25		FY26		FY27		FY28	
		Rs. Per KG	Minimum Rate	Rs. Per KG	Minimum Rate	Rs. Per KG	Minimum Rate	Rs. Per KG	Minimum Rate	Rs. Per KG	Minimum Rate
<b>EXPORT CARGO</b>											
a	Handling Charges	450	450 per manifest, including nil flights	470	470 per manifest, including nil flights	490	490 per manifest, including nil flights	510	510 per manifest, including nil flights	535	535 per manifest, including nil flights
a.1	General Cargo										
1)	Palletization/containerization	2.08	-	2.17	-	2.27	-	2.37	-	2.47	-
	Bulk Cargo	1.34	-	1.40	-	1.46	-	1.53	-	1.59	-
a.2	Valuable/Perishable/Hazardous Cargo/Live Animals, etc										
	Palletization/containerization	4.16	-	4.34	-	4.53	-	4.73	-	4.94	-
	Bulk Cargo	2.54	-	2.65	-	2.77	-	2.89	-	3.02	-
a.3	Express & Courier Cargo										
	Palletization/containerization	5.20	-	5.43	-	5.67	-	5.92	-	6.18	-
	Bulk Cargo	3.18	-	3.32	-	3.46	-	3.62	-	3.78	-
2)	Demurrage/Storage Charge (Rate per kg per day)										
(a)	General Export Cargo	1.97	330 per AWB	2.06	345 per AWB	2.15	360 per AWB	2.24	375 per AWB	2.34	390 per AWB
(b)	Valuable/Perishable/Hazardous Cargo/Live Animals, etc	4.74	380 per AWB	4.95	400 per AWB	5.17	420 per AWB	5.39	440 per AWB	5.63	460 per AWB
3)	X-ray Charges with Certification	2.43	subject to min. of 116 per AWB	2.54	subject to min. of 121 per AWB	2.65	subject to min. of 126 per AWB	2.77	subject to min. of 131 per AWB	2.89	subject to min. of 137 per AWB
4)	Export General										
	Electronic Data Submission for Customs	148.50 per flight	148.50	155.03 per flight	155.03	161.86 per flight	161.86	168.98 per flight	168.98	176.41 per flight	176.41
5)	BUP Charge - General Cargo*										
	BUP Charge (upto LD3)	1750 per unit	-	1825 per unit	-	1900 per unit	-	1975 per unit	-	2050 per unit	-
	BUP Charge (above LD3 - lower deck pallet)	3500 per unit	-	3650 per unit	-	3800 per unit	-	3950 per unit	-	4100 per unit	-
	BUP Charge (above LD3 - main deck pallet)	5250 per unit	-	5475 per unit	-	5700 per unit	-	5925 per unit	-	6150 per unit	-
	BUP Charge - Other than General Cargo*										
	BUP Charge (upto LD3)	2625 per unit	-	2750 per unit	-	2850 per unit	-	2975 per unit	-	3075 per unit	-
	BUP Charge (above LD3 - lower deck pallet)	5250 per unit	-	5500 per unit	-	5700 per unit	-	5950 per unit	-	6150 per unit	-

	BUP Charge (above LD3 - main deck pallet)	7875 per unit	-	8250 per unit	-	8550 per unit	-	8925 per unit	-	9225 per unit	-
	* BUP not permitted for consignments with restricted articles/DG/VAL cargo										
<b>IMPORT CARGO</b>											
a	Handling Charges	450.00	450 per flight	470	470 per flight	490	490 per flight	510	510 per flight	535	535 per flight
a.1	General Cargo										
1)	De-Palletization	2.08	-	2.17	-	2.27	-	2.37	-	2.47	-
	Bulk Cargo	1.34	-	1.40	-	1.46	-	1.53	-	1.59	-
a.2	Valuable/Perishable/Hazardous Cargo/Live Animals, etc										
	De-Palletization	4.16	-	4.34	-	4.53	-	4.73	-	4.94	-
	Bulk Cargo	2.54	-	2.65	-	2.77	-	2.89	-	3.02	-
a.3	Express & Courier Cargo										
	De-Palletization	5.20	-	5.43	-	5.67	-	5.92	-	6.18	-
	Bulk Cargo	3.18	-	3.32	-	3.46	-	3.62	-	3.78	-
2)	Demurrage/Storage Charge (Rate per kg per day)										
(a)	General Import Cargo	1.97	subject to min. of 330 per IGM	2.06	subject to min. of 345 per IGM	2.15	subject to min. of 360 per IGM	2.24	subject to min. of 375 per IGM	2.34	subject to min. of 390 per IGM
(b)	Valuable/Perishable/Hazardous Cargo/Live Animals, etc	4.74	subject to min. of 380 per IGM	4.95	subject to min. of 400 per IGM	5.17	subject to min. of 420 per IGM	5.39	subject to min. of 440 per IGM	5.63	subject to min. of 460 per IGM
3)	Import General	-	-	-	-	-	-	-	-	-	-
	Electronic Data Submission for Customs	148.50	per flight	155.03	per flight	161.86	per flight	168.98	per flight	176.41	per flight
<b>TRANSHIPMENT CHARGES</b>											
1)	Transshipment Charges	2.31	subject to min. of 185 per AWB per day	2.41	subject to min. of 193 per AWB per day	2.52	subject to min. of 201 per AWB per day	2.63	subject to min. of 210 per AWB per day	2.74	subject to min. of 220 per AWB per day

**Notes:**

1. Only maximum cargo handling rates have been suggested for Airlines as user agreements will be entered into with each Airline based on the IATA AHM 810 STANDARD GROUND HANDLING AGREEMENT 2004 or 2008 or 2013 (SGHA) as amended from time to time with mutual consent.

2. The rates with each Airline will be negotiated based on services required from SGHA service items (usage of equipment and manpower) and other services necessary, throughput service level agreement, credit period and liability and indemnity requirement.
3. All charges mentioned above exclude taxes which will be charged at the prevailing rates.
4. No outside labour will be allowed to handle cargo in WFSBPL Airfreight Terminal and WFSBPL Cold Chain Facility.
5. For BUP consignments, it is assumed that cargo arrives in unitized form, pre-screened and cleared. Any Unitization/Build-up/Palletization and X-ray screening services availed at the cargo terminal will attract the applicable charges.

**Tariff Rate Card proposed by the Authority for WFSBPL for the First Control Period**

**(A) TSP CHARGES - INTERNATIONAL CARGO**

S.NO.	LIST OF CHARGES	FY 2023-24		FY 2024-25		FY 2025-26		FY 2026-27		FY 2027-28	
		Rs. Per KG	Minimum Rate	Rs. Per KG	Minimum Rate	Rs. Per KG	Minimum Rate	Rs. Per KG	Minimum Rate	Rs. Per KG	Minimum Rate
<b><u>EXPORT CARGO</u></b>											
1)	Terminal, Storage and Processing Charge (TSP) – per Shipping Bill										
(a)	General Cargo	1.26	150	1.40	167	1.54	183	1.68	200	1.83	218
(b)	Special Cargo (AVI)	1.90	300	2.10	333	2.32	366	2.52	399	2.75	435
(c)	PER/DGR/VAL cargo	3.28	300	3.64	333	4.00	366	4.36	399	4.75	435
(d)	Perishable CARGO in Cold Chain Facility (PER/PIL/PEF, etc)	3.30	300	3.66	333	4.03	366	4.39	399	4.79	435
(e)	<b><u>BUP Charge - General Cargo*</u></b>										
	BUP Charge (upto LD3)	1401 per unit	-	1555 per unit	-	1710 per unit	-	1864 per unit	-	2032 per unit	-
	BUP Charge (above LD3 - lower deck pallet)	2800 per unit	-	3108 per unit	-	3419 per unit	-	3726 per unit	-	4062 per unit	-
	BUP Charge (above LD3 - main deck pallet)	5998 per unit	-	6657 per unit	-	7323 per unit	-	7982 per unit	-	8700 per unit	-
(f)	<b><u>BUP Charge - Other than General Cargo*</u></b>										
	BUP Charge (upto LD3)	3300 per unit	-	3663 per unit	-	4029 per unit	-	4392 per unit	-	4787 per unit	-
	BUP Charge (above LD3 - lower deck pallet)	6600 per unit	-	7326 per unit	-	8059 per unit	-	8784 per unit	-	9574 per unit	-
	BUP Charge (above LD3 - main deck pallet)	9900 per unit	-	10989 per unit	-	12088 per unit	-	13176 per unit	-	14362 per unit	-
2)	Demurrage/Storage Charge (Rate per kg per 24 hours)										
(a)	General Cargo	1.01	164	1.12	182	1.23	200	1.34	218	1.46	238
(b)	Special Cargo (AVI)	1.90	315	2.10	350	2.32	385	2.52	419	2.75	457
(c)	PER/DGR/VAL cargo	3.28	315	3.64	350	4.00	385	4.36	419	4.75	457
3)	Courier Handling Charge	1.90	180	2.10	200	2.32	220	2.52	240	2.75	261
4)	Packing/Repacking/Strapping Charge	6.00 per Carton/Bag	6.00	6.66 per Carton/Bag	6.66	7.30 per Carton/Bag	7.30	7.95 per Carton/Bag	7.95	8.67 per Carton/Bag	8.67
5)	Return Cargo Charge	600.00 per AWB	600.00	666 per AWB	666.00	729.74 per AWB	729.74	795.42 per AWB	795.42	867.00 per AWB	867.00
6)	Airway Bill Amendment Charge	120.00 per AWB	120.00	133.20 per AWB	133.20	145.95 per AWB	145.95	159.09 per AWB	159.09	173.40 per AWB	173.40



7)	Weight/Volume Mis-Declaration Charge										
(a)	2-5% variation	2 times of applicable TSP	-	2 times of applicable TSP	-	2 times of applicable TSP	-	2 times of applicable TSP	-	2 times of applicable TSP	-
(b)	More than 5% variation	5 times of applicable TSP	-	5 times of applicable TSP	-	5 times of applicable TSP	-	5 times of applicable TSP	-	5 times of applicable TSP	-
8)	Overtime Charge (Beyond Customs Working Hrs)	60.00 per Shipping Bill	60.00	66.60 per Shipping Bill	66.60	72.97 per Shipping Bill	72.97	79.54 per Shipping Bill	79.54	86.71 per Shipping Bill	86.71
	VAL Cargo	1,200.00 per AWB	1,200.00	1,332.00 per AWB	1,332.00	1,459.48 per AWB	1,459.48	1,590.82 per AWB	1,590.82	1,734.01 per AWB	1,734.01

\*BUP not permitted for consignments with restricted articles/DG/VAL cargo.

S.NO.	LIST OF CHARGES	FY 2023-24 Rs. Per KG	Minimum Rate	FY 2024-25 Rs. Per KG	Minimum Rate	FY 2025-26 Rs. Per KG	Minimum Rate	FY 2026-27 Rs. Per KG	Minimum Rate	FY 2027-28 Rs. Per KG	Minimum Rate
<b>IMPORT CARGO</b>											
1)	Terminal, Storage and Processing Charge (TSP) – per Bill of Entry										
(a)	General Cargo/ Unaccompanied Baggage	6.48	150	7.19	167	7.91	183	8.62	200	9.40	218
(b)	Special Cargo (AVI)	12.96	300	14.39	333	15.82	366	17.25	399	18.80	435
(c)	PER/DGR/VAL cargo	12.96	300	14.39	333	15.82	366	17.25	399	18.80	435
(d)	<b><u>BUP Charge - General Cargo</u></b>										
	BUP Charge (upto LD3)	7203 per unit	-	7995 per unit	-	8795 per unit	-	9586 per unit	-	10449 per unit	-
	BUP Charge (above LD3 - lower deck pallet)	14402 per unit	-	15986 per unit	-	17585 per unit	-	19167 per unit	-	20893 per unit	-
	BUP Charge (above LD3 - main deck pallet)	30845 per unit	-	34238 per unit	-	37662 per unit	-	41051 per unit	-	44746 per unit	-
(e)	<b><u>BUP Charge - Other than General Cargo</u></b>										
	BUP Charge (upto LD3)	14406 per unit	-	15991 per unit	-	17590 per unit	-	19173 per unit	-	20898 per unit	-
	BUP Charge (above LD3 - lower deck pallet)	28804 per unit	-	31972 per unit	-	35170 per unit	-	38335 per unit	-	41785 per unit	-
	BUP Charge (above LD3 - main deck pallet)	61690 per unit	-	68476 per unit	-	75323 per unit	-	82103 per unit	-	89492 per unit	-
2)	Demurrage/Storage Charge (Rate per kg per 24 hrs)										
(a)	General Cargo										

(i)	Flight Actual Time of Arrival (ATA) plus 48 hrs	No charge		No charge		No charge		No charge		No charge	
(ii)	Cargo cleared between 48 hrs and 96 hrs	1.98	403	2.20	448	2.42	492	2.64	537	2.87	585
(iii)	Cargo cleared between 96 hrs and 720 hrs	3.71	403	4.12	448	4.53	492	4.93	537	5.38	585
(iv)	Cargo cleared after 720 hrs	5.56	403	6.17	448	6.78	492	7.39	537	8.06	585
(b)	Special Cargo (AVI)										
(i)	Flight Actual Time of Arrival (ATA) plus 48 hrs	No charge		No charge		No charge		No charge		No charge	
(ii)	Cargo cleared between 48 hrs and 96 hrs	3.71	750	4.12	833	4.53	916	4.93	998	5.38	1,088
(iii)	Cargo cleared between 96 hrs and 720 hrs	7.40	750	8.22	833	9.04	916	9.85	998	10.74	1,088
(iv)	Cargo cleared after 720 hrs	11.11	750	12.33	833	13.57	916	14.79	998	16.12	1,088
(c)	PER/DGR/VAL cargo										
(i)	Flight Actual Time of Arrival (ATA) plus 48 hrs	No charge		No charge		No charge		No charge		No charge	
(ii)	Cargo cleared between 48 hrs and 96 hrs	7.40	1,530	8.22	1,698	9.04	1,868	9.85	2,036	10.74	2,220
(iii)	Cargo cleared between 96 hrs and 720 hrs	14.88	1,530	16.52	1,698	18.17	1,868	19.80	2,036	21.59	2,220
(iv)	Cargo cleared after 720 hrs	22.30	1,530	24.75	1,698	27.22	1,868	29.67	2,036	32.34	2,220
3)	Courier Handling Charge	7.27	240	8.07	266	8.88	293	9.68	319	10.55	348
4)	Airway Bill Amendment Charge	120.00 per AWB	120.00	133.20 per AWB	133.20	146.52 per AWB	146.52	159.71 per AWB	159.71	174.08 per AWB	174.08
5)	Transshipment charge										
(a)	General Cargo	2.38	150	2.64	167	2.90	183	3.16	200	3.45	218
(b)	PER/DGR/VAL Cargo	2.38	282	2.64	313	2.90	344	3.16	375	3.45	409
6)	Documentation Charges	120.00 per AWB	120.00	133.20 per AWB	133.20	146.52 per AWB	146.52	159.71 per AWB	159.71	174.08 per AWB	174.08
7)	Overtime Charges (Beyond Customer Working Hrs)										
(a)	General Cargo	240.00 per Bill of Entry	240.00	266.40 per Bill of Entry	266.40	293.04 per Bill of Entry	293.04	319.41 per Bill of Entry	319.41	348.16 per Bill of Entry	348.16
(b)	VAL Cargo	1,200.00 per AWB	1,200.00	1,332.00 per AWB	1,332.00	1,465.20 per AWB	1,465.20	1,597.07 per AWB	1,597.07	1,740.80 per AWB	1,740.80
8)	Packing/Repacking/Strapping Charge	6.00 per Carton/Bag	6.00	6.66 per Carton/Bag	6.66	7.33 per Carton/Bag	7.33	7.99 per Carton/Bag	7.99	8.70 per Carton/Bag	8.70

**Notes:**

1. Consignments of Human Remains, Coffins and Unaccompanied Baggage of the Deceased and Human eyes will be exempt from the purview of TSP charges and Demurrage Charges.
2. TSP charges applicable to Newspaper TV reel consignments shall be at 50% of applicable charges.

3. TSP charges are inclusive of forklift used for loading/offloading the cargo to/from the truck and putting cargo on customs area for examination.
4. Charges will be levied on the Gross weight or Chargeable Weight whichever is higher. Wherever there is a mis-declaration of Gross weight or Chargeable Weight, the Actual Gross weight or the Actual Chargeable Weight will be used for the charges whichever is higher.
5. Demurrage
- Export Cargo - Total free period available for export cargo would be 12 hrs. or as decided by Govt. of India from time to time.
- Import Cargo - Free period shall be 48 hrs. from segregation time or as decided by the Govt. of India from time to time.
- If the clearance is done on 3rd and 4th day from Flight segregation Time then the charges are as per 2 (A), (B) & (C) per kg per day. If the clearance is done after the 4th day of the Flight Segregation Time, the demurrage will be calculated cumulatively as under:
- a) Day of Flight Segregation Time 4th day Slab 1
  - b) 5th Day - 29 days - (both days inclusive) Slab 1 & Slab 2
  - c) Beyond 29 days Slab 3
6. All billing will be rounded off to the nearest INR 5/- as per IATA Tact rule.
7. Special Cargo (AVI) consists of live animals and day-old chicks.
8. VAL cargo includes gold bullion, currency notes, shares, share coupons, traveler's cheque, diamonds (including diamonds for industrials use) diamond jewellery watches of silver-gold platinum and items valued at USD 1000/kg and above.
9. For consolidation on Transshipment cargo, TSP charges will be levied to all types of cargo, in addition to Transshipment Charges mentioned above. Demurrage charges for the free period may be considered to be governed as per the instruction of Govt. of India issued from time to time.
10. All charges mentioned above exclude taxes which will be charged at the prevailing rates.
11. All charges mentioned above include the concession fees & other airport levies charged by the airport operator.
12. No outside labour will be allowed to handle cargo in WFSBPL Airfreight Terminal and WFSBPL Cold Chain Facility.
13. For BUP consignments, it is assumed that cargo arrives in unitized form, pre-screened and cleared. Any Unitization/Build-up/Palletization and X-ray screening services availed at the cargo terminal will attract the applicable charges.

**(B) AIRLINES FEES – INTERNATIONAL CARGO**

S.NO.	LIST OF CHARGES	FY 2023-24		FY 2024-25		FY 2025-26		FY 2026-27		FY 2027-28	
		Rs. Per KG	Minimum Rate	Rs. Per KG	Minimum Rate	Rs. Per KG	Minimum Rate	Rs. Per KG	Minimum Rate	Rs. Per KG	Minimum Rate
<b><u>EXPORT CARGO</u></b>											
a	Handling Charges	450	450 per manifest, including nil flights	500	500 per manifest, including nil flights	550	550 per manifest, including nil flights	600	600 per manifest, including nil flights	655	655 per manifest, including nil flights
a.1	General Cargo										
1)	Palletization/containerization	2.27	-	2.52	-	2.77	-	3.02	-	3.29	-
	Bulk Cargo	1.46	-	1.63	-	1.79	-	1.95	-	2.12	-
a.2	Valuable/Perishable/Hazardous Cargo/Live Animals, etc										
	Palletization/containerization	4.54	-	5.03	-	5.54	-	6.04	-	6.58	-
	Bulk Cargo	2.77	-	3.08	-	3.38	-	3.69	-	4.02	-
a.3	Express & Courier Cargo										
	Palletization/containerization	5.68	-	6.30	-	6.93	-	7.55	-	8.23	-
	Bulk Cargo	3.47	-	3.85	-	4.23	-	4.62	-	5.03	-
a.4	<b><u>BUP Charge - General Cargo*</u></b>										
	BUP Charge (upto LD3)	1623 per unit	-	1802 per unit	-	1982 per unit	-	2160 per unit	-	2354 per unit	-
	BUP Charge (above LD3 - lower deck pallet)	3245 per unit	-	3602 per unit	-	3962 per unit	-	4319 per unit	-	4707 per unit	-
	BUP Charge (above LD3 - main deck pallet)	6950 per unit	-	7715 per unit	-	8486 per unit	-	9250 per unit	-	10082 per unit	-
	<b><u>BUP Charge - Other than General Cargo*</u></b>										
	BUP Charge (upto LD3)	3079 per unit	-	3418 per unit	-	3759 per unit	-	4098 per unit	-	4467 per unit	-
	BUP Charge (above LD3 - lower deck pallet)	6156 per unit	-	6833 per unit	-	7516 per unit	-	8193 per unit	-	8930 per unit	-
	BUP Charge (above LD3 - main deck pallet)	13185 per unit	-	14635 per unit	-	16099 per unit	-	17548 per unit	-	19127 per unit	-
2)	Demurrage/Storage Charge (Rate per kg per day)										
(a)	General Export Cargo	2.15	330 per AWB	2.38	366 per AWB	2.62	403 per AWB	2.86	439 per AWB	3.12	478 per AWB
(b)	Valuable/Perishable/Hazardous Cargo/Live Animals, etc	5.17	380 per AWB	5.74	422 per AWB	6.32	464 per AWB	6.88	506 per AWB	7.50	551 per AWB
3)	X-ray Charges with Certification	2.65	subject to min. of 126 per AWB	2.94	subject to min. of 140 per AWB	3.24	subject to min. of 154 per AWB	3.53	subject to min. of 168 per AWB	3.85	subject to min. of 183 per AWB
4)	Export General										

	Electronic Data Submission for Customs	162 per flight	162.00	179.82 per flight	179.82	197.80 per flight	197.80	215.60 per flight	215.60	235.01 per flight	235.01
* BUP not permitted for consignments with restricted articles/DG/VAL cargo											
<b><u>IMPORT CARGO</u></b>											
a	Handling Charges	450.00	450 per flight	500	500 per flight	550	550 per flight	600	600 per flight	655	655 per flight
a.1	General Cargo										
1)	De-Palletization	2.27	-	2.52	-	2.77	-	3.02	-	3.29	-
	Bulk Cargo	1.46	-	1.63	-	1.79	-	1.95	-	2.12	-
a.2	Valuable/Perishable/Hazardous Cargo/Live Animals, etc.										
	De-Palletization	4.54	-	5.03	-	5.54	-	6.04	-	6.58	-
	Bulk Cargo	2.77	-	3.08	-	3.38	-	3.69	-	4.02	-
a.3	Express & Courier Cargo										
	De-Palletization	5.68	-	6.30	-	6.93	-	7.55	-	8.23	-
	Bulk Cargo	3.47	-	3.85	-	4.23	-	4.62	-	5.03	-
a.4	<b><u>BUP Charge - General Cargo*</u></b>										
	BUP Charge (upto LD3)	1623 per unit	-	1802 per unit	-	1982 per unit	-	2160 per unit	-	2354 per unit	-
	BUP Charge (above LD3 - lower deck pallet)	3245 per unit	-	3602 per unit	-	3962 per unit	-	4319 per unit	-	4707 per unit	-
	BUP Charge (above LD3 - main deck pallet)	6950 per unit	-	7715 per unit	-	8486 per unit	-	9250 per unit	-	10082 per unit	-
	<b><u>BUP Charge - Other than General Cargo*</u></b>										
	BUP Charge (upto LD3)	3079 per unit	-	3418 per unit	-	3759 per unit	-	4098 per unit	-	4467 per unit	-
	BUP Charge (above LD3 - lower deck pallet)	6156 per unit	-	6833 per unit	-	7516 per unit	-	8193 per unit	-	8930 per unit	-
	BUP Charge (above LD3 - main deck pallet)	13185 per unit	-	14635 per unit	-	16099 per unit	-	17548 per unit	-	19127 per unit	-
2)	Demurrage/Storage Charge (Rate per kg per day)										
(a)	General Import Cargo	2.15	subject to min. of 289.80 per IGM	2.38	subject to min. of 321.68 per IGM	2.62	subject to min. of 353.85 per IGM	2.86	subject to min. of 385.69 per IGM	3.12	subject to min. of 420.40 per IGM
(b)	Valuable/Perishable/Hazardous Cargo/Live Animals, etc.	5.17	subject to min. of 289.80 per IGM	5.74	subject to min. of 321.68 per IGM	6.32	subject to min. of 353.85 per IGM	6.88	subject to min. of 385.69 per IGM	7.50	subject to min. of 420.40 per IGM
3)	Import General	-	-	-	-	-	-	-	-	-	-
	Electronic Data Submission for Customs	162.00	per flight	179.82	per flight	197.80	per flight	215.60	per flight	235.01	per flight
TRANSHIPMENT CHARGES											

1)	Transshipment Charges	2.52	subject to min. of 202 per AWB per day	2.80	subject to min. of 224 per AWB per day	3.08	subject to min. of 246 per AWB per day	3.35	subject to min. of 268 per AWB per day	3.66	subject to min. of 292 per AWB per day
----	-----------------------	------	---	------	---	------	---	------	---	------	---

**Notes:**

1. Only maximum cargo handling rates have been suggested for Airlines as user agreements will be entered into with each Airline based on the IATA AHM 810 STANDARD GROUND HANDLING AGREEMENT 2004 or 2008 or 2013 (SGHA) as amended from time to time with mutual consent.
2. The rates with each Airline will be negotiated based on services required from SGHA service items (usage of equipment and manpower) and other services necessary, throughput service level agreement, credit period and liability and indemnity requirement.
3. All charges mentioned above exclude taxes which will be charged at the prevailing rates.
4. No outside labour will be allowed to handle cargo in WFSBPL Airfreight Terminal and WFSBPL Cold Chain Facility.
5. For BUP consignments, it is assumed that cargo arrives in unitized form, pre-screened and cleared. Any Unitization/Build-up/Palletization and X-ray screening services availed at the cargo terminal will attract the applicable charges.