DELHI JAL BOARD: GOVT. OF NCT OF DELHI
OFFICE OF THE EXECUTIVE ENGINEER(C)DR.XI
ROOM NO. 308, VARUNALAYA PHASE-I, KAROL BAGH,
NEW DELHI-110005
Telefax :- 011-23554487

NO.F5(6)/EE(C)DR.XI/2018/

Dated : 23.07.2018

Subject : Construction of 564 MLD (124 MGD) WWTP with effluent standards of BOD – 10 mg/l, TSS – 10 mg/l, or better and Power Generation on Design, Build and Operate (one year DLP plus 10 years O&M) basis & demolition of existing Phase-I , II, III and IV WWTPs at Okhla under YAP-III (Package-O).

- JICA Assisted Yamuna Action Plan (YAP-III) Project - ID-P215.

CORRIGENDUM & ADDENDUM NO. 6 to NIT NO. 03 (2017-18)

In reference to above mentioned subject, please find attached herewith the Corrigendum & Addendum No. 6.

23.7.18

(Anil Choudhary)
Executive Engineer (C) DR-XI

Corrigendum & Addendum No. 6

S. No.	Clause reference	Corrigendum & Addendum
1.	Volume 1, Part B - Initial Filter Qualification, Section-III-A Qualification Criteria, Foot Note-1 page 172	**The existing sentence,** *The experience of the bidder in a project executed in JV, shall ---------- firm in any earlier project executed in a JV.* **Stands deleted** **The Revised Sentence is as under:** *" The experience of the bidder in a project executed in JV, shall be considered only if the firm has completed the work as a Lead partner / Prime contractor with maximum share in the JV in a particular project. However, in regards to experience of JV Partner(s) (i.e., JV firm) other than the lead partner, the experience shall be considered in proportion to the share of the firm in the project executed in such a JV.* *(for example, if a WWTP of 100 MLD has been constructed in a JV in the 40:30:30: format, then the lead partner having 40% share will get experience of 100 MLD, whereas for the other two partners the experience shall be as 30 MLD each in proportion to their share).* *However, in case of JV with 50:50 share, both the partners will qualify for full experience."*
2.	Volume 1 Part-A, Section-IV: Bidding Forms for Technical Bid, page 37	*List of Electrical Drives in the format as given:* *For Format refer to* ***Annexure-1*** *attached herewith*
3.	Corrigendum & Addendum No.3, S.No. 27	**The existing sentence,** *"Minimum capacity of each Gas Genset at alternator terminals shall be 1250 KVA ..... or minimum 2 nos as standby"* **stands deleted.** **The revised Sentence is as under:** *"Minimum capacity of each Gas Genset at alternator terminals shall be 1200 kWe at 415V, 3ph, 50 c/s and unity power factor & 100% load at site condition. Actual nos. can very as per requirement with minimum 2 Nos. as standby."*
4.	Corrigendum & Addendum No.5, S. No. 1	**The existing matter provided under C&A no 5 -** Annexure -1" **stands deleted.** ***The revised matter is as per Annexure-2 attached under***

Annexure-1: List of Electrical Drives

Note : **This information requested is to consider the Bidders load calculations for Transformer and Emergency power Calculation of Transformer and for communication to the Electricity Board and for assessment of Emergency Load requirement**

(This table shall not be used for evaluating the bidders offer for guaranteed load which shall be as per schedule and numbers given under Functional Guarantees of the Plant)

Margin should be considered as 0-8 kW=25%, 9 kW-30 kW=20%, 37 kW-75 Kw-15%, 90kW onwards 10%

S. No.	*Drive For*	*Total Nos.*	*Working Nos.*	*Stand by*	*BKW of Motor*	*Margin (10% to 25%)*	*Rating (KW)*	*Efficiency of Motor*	*Operating KW*	*Operating Hrs. / Day*	*Energy Consumption per day in KWH*	*System Power Loss 3%*	*Total Energy Consumption Per day in KWH*	*Emergency Load KW*	*Remarks*
(a)	(b)	(c)	(d)	(e)	(f)	10%-25%	(g)	(h)	(i) = (d) x (f)/(h)	(j)	(k) = (i) x(j)	(l)	(k)+(l)	(m)	(n)
			Total Operating Load												

ANNEXURE-2

The Bidder shall guarantee the Net Electric Power Consumed based on the following Nominal Design loads:

S No	Parameter	Nomenclature	Units	Nominal Numbers
1	Nominal Design Flow	Qd	M^3/day	564,000
2	Total Suspended Solids	TSSd	mg/l	400
3	Volatile Suspended Solids / Suspended Solids Ratio	(VSS/ TSS)d	%	60 %
4	BOD	(BOD)d	mg/l	250
5	TKN	(TN)d	mg/l	50

a) ***Guaranteed Power***

The Guaranteed Net Power Consumption shall be guaranteed by the bidder at the Nominal design Flow and design Pollutant load in the following table:

Guaranteed Net Power Consumption under nominal design load (PG)d, Kwhr / day	(PG-F) + (PG-V)d	
Where, (PG-F)	Fixed Part	
(PG-V)d	Variable Part	

b) ***Guaranteed Net Power Adjustment for Variable Part ((PG-V)d) from Normal Flow & Pollutant Load***

In case of variance of flow or pollutant load the guaranteed power shall be evaluated as per the following formula where Power Consumed at reduced load (PG)a will be

(PG-V)a =[{Qa/Qd} x {(TSS)a x (VSS/ TSS)a} / ((TSS)dx (VSS/ TSS)d}X F1 + {Qa/Qd} x {(BOD)a } / { (BOD)d} X F2 + {Qa/Qd} x {(TKN)a } /{ (TKN)d} X F3] x (PG-V)d

Where,

Qa=Actual Wastewater Flow (average over immediate past 5 days)

TSS a =Actual Total Suspended Solids (average over immediate past 5 days)

(VSS/TSS)a =Actual Volatile Suspended Solids to Total Suspended Solids (average over immediate past 5 days)

BOD a= Actual BOD Concentration (average over immediate past 5 days)

TKN a = Actual TKN Concentration (average over immediate past 5 days)

The Pollutant Factors are:

F1 = Factor for TSS Pollutant Loading and VSS/ TSS ratio

F2 = Factor for BOD Pollutant Loading

F3 = Factor for TKN Pollutant Loading

The factors applicable shall be as given below:

S No	Parameter	Units		Values of Pollutant Load Factor
1	Nominal Design Flow	M^3/day		
2	Total Suspended Solids	mg/l	F1	0.45
3	Volatile Suspended Solids / Total Suspended Solids Ratio	%		
4	BOD_3 Day @ 27 °C	mg/l	F2	0.3
5	TKN	mg/l	F3	0.25

The Bidder's offer shall be evaluated on Net Guaranteed Power only, however during actual operation the Power consumed by bidders shall be calculated according to the above indicated formula and penalties shall be enforceable as per "Section XII – Service Level Agreement, Volume - 3 of Bid Document".