



Tender for Annual Rate Contract for Inspection, Testing
and Refurbishment of CNG Cascades at Hyderabad,
Vijayawada & Kakinada

VOLUME
II OF II

Bid Document No. BGL/251/2014-15



BHAGYANAGAR GAS LIMITED

(A JOINT VENTURE OF HPCL & GAIL)

BID DOCUMENT FOR

**Tender for Annual Rate Contract for Inspection, Testing and
Refurbishment of CNG Cascades at Hyderabad, Vijayawada &
Kakinada**

**UNDER OPEN DOMESTIC
COMPETITIVE BIDDING**

Bid Document No.: BGL/251/2014-15

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SECTION – 7

BRIEF SCOPE OF WORK

SCOPE OF WORK

1. The bidder shall arrange for removal of CNG cascade from station/location of its installation.
2. All the tubing work necessary for removal of cascade from station is in bidder's scope. After removal of cascade, tubing necessary for operation of station is also in bidder's scope. Tubing and fittings required for the purpose will be provided by BGL. The bidder shall have to use same material at all the stations. Bidder has to obtain BGL authorization and Permit to Work (to isolate & remove cascade(s) from current location, arrange crane of appropriate capacity and LCV / Truck for unloading and transportation of the cascades at given CNG outlet as per the BGL Cascade replacement schedule. Hydra/Crain/Vehicle driver shall possess the Valid transport License (Heavy / Transport). Hydra shall have Valid Form NO 12. Safety latch shall be available on crane hook. Crane shall have valid Testing Certificate of Slings (Neoprene / Wire Rope). Crane shall have valid Testing Certificate of D-Shackles Crane shall have Wooden Wheel Stoppers (4 Nos). Every personal involved in unloading, transportation & cascade tubing work shall wear PPE's i.e. Safety shoes, helmets, safety jackets. Load the cascade on the LCV / Truck and provide proper support to avoid any damage during transportation to the place of work, and unload safely at the place of work. Transportation of the cascade shall be carried out as per PESO guidelines. Venting of the gas from the cascade cylinders shall be carried out through PESO approved venting facility at a work place.
3. The cascades are installed in CNG stations at different locations. The bidder shall remove these cascades from the original locations. The necessary services required for lifting & installation viz crane, rigger gang etc will be in bidder's scope.
4. The hydra/crane/vehicle driver shall possess the valid statutory license.
5. In case of locations where removal of cascade by crane is not possible or arrangement of suitable crane is difficult, BGL may allow for removal of fencing made up of weld mesh structural steel along with restoration, grouting & associated civil works on case-to-case basis. In such cases removal & re-fitting to its original condition will be in bidder's scope. All material, work force and other resources required for such work will be in bidder's scope. BGL will not make any arrangement in this regard. Delay in completion of work will lead to penalty as per the relevant clause.
6. The bidder shall carry out lifting and installation in daytime as per BGL schedule .BGL normally allows work on Saturday and Sunday. However, this will not deter BGL in requesting work in nighttime and in weekdays. The completion of work should be in accordance with BGL. All safety precautions & standards as prescribed by BGL are to be followed by members of bidder at the time of execution. This includes taking of necessary permits from respective BGL control room, its resubmission after completion of work and using personal protective equipment's.
7. The cascades are installed with top roof and other accessories, removal of these from cascade and their reinstalling after cascade testing is in bidder's scope. Damage of items during work will require their replacement by bidder on free of cost basis.
8. The transportation of cascades from BGL station to bidder's workplace is in bidder's scope.

9. The Bidder shall carry out ultrasonic Flaw detection testing of cylinders as per IS 8451: 2009 amendment no 1st May 2013.
10. Bidder shall ensure all the cylinders are empty before dismantling. Bidder shall dismantle the cylinders, manifold tubing and fittings from the existing frame and has to note down all the cylinder numbers for each specific cascade. Remove the cylinder valve by using proper tools (Do not use adjustable spanner) Plug the cylinder to avoid any dust particle entering inside cylinder.
11. The bidder shall carry out cascade hydro-stretch testing, as per the gas cylinder rule 2004 and subsequent amendment. Hydro-stretch testing job has to be completed as per IS 5844 with future amendment.
12. The Bidder must have all the required instruments, i.e. high pressure pump, drying unit, ultrasonic thickness measuring instruments, oxygen analyzer & other required instruments to carry out the jobs. The bidder shall submit list of such tools as part of bid.
13. The normal operating pressure of CNG cylinders is 255 kgf/cm² and testing is 435 kgf/cm². The bidder shall check same from cylinder and carry out testing accordingly.
14. Bidder shall calibrate SRV, PG's, TG's of the cascades as per the standards with Master traceable to National or International standards and submit the calibration certificate.
15. The Bidder shall repair cascade frame as per the requirement. Payment for the repair work will be made as per the SOR. The cascade repair will include repair / replacement of structure.
16. The bidder shall arrange for replacement of defective tubing and fitting as per the requirement. BGL will provide tubing and fittings on request.
17. The bidder must have trained work force to do the SS double ferrule connections, joints etc. The training has to be imparted by M/s Swagelok or M/s Parker Hannifin, Mumbai..
18. The Bidder shall paint the cylinders after priming and surface preparation by sand blasting/automatic wire brushing as per the industry practice. The Bidder shall also paint the structure of cascade as per the industry painting standards. The paint done on cylinder and structure should be of good quality and fit for 3 years period. Any defect in painting will be repaired by bidder on free of cost basis else will lead to penalty. Any cost associated with rework of painting viz transportation, dismantling & assembling of cascade etc will be in bidder's scope and BGL will not pay any amount against this. Delay in completion of testing work will lead to penalty as per the penalty clause.
19. The Bidder shall reassemble cascade (CNG Cylinders, PRDs, Valves, SS Tubing, Frame, Manifold etc.) as per the original configuration of the cylinders. The bidder shall provide and replace packing of cascade for ensuring no metal to metal contact between cylinder and cascade structure. Bidder should replace defective parts with new ones. Providing of new packing material, cylinder clamps, studs, gland nuts, Teflon washer for gland nuts etc., for replacement of old parts shall be in bidder scope. The bidder shall use spring washers for clamping of cylinder on structure. However payment for spares & services as mentioned in SOR PART-II shall on actual basis and submission of material reconciliation and handing over of removed defective spares/ parts to BGL for each cascade.
20. The bidder shall replace defective cylinder valves after confirmation by BGL. Payment for replacement of valves will be made as per the SOR. The valve used for the purpose

shall be as per the IS 3224 and shall meet all necessary statutory requirements including approval from BGL.

21. The bidder shall replace Pressure Rupture Discs(PRD)s/Burst Discs along with fusible plug as per the instructions of BGL. For the purpose, BGL will provide PRD & fusible plug to bidder. The bidder shall arrange for replacement of these in cascades. The bidder shall prepare reconciliation statement and shall return used spares to BGL.
22. The bidder shall transport the cascade back to the same CNG station from where the cascade was removed and shall ensure its re-installation at same location. The reinstallation work shall have to be necessarily carried out in daytime. Required services viz tempo, crane, rigger etc will be in bidders scope.
23. Reinstallation of cascade in original position is necessary except otherwise required by BGL. Deviation in this will be considered as defect in service and will lead to penalty. Also, the bidder shall have to rectify the same at its cost and risk.
24. The bidder shall ensure proper anchoring of the cascade on the base and shall connect earthing strip with the cascade. The bidder shall also carry out necessary tubing to connect the cascade with station.
25. After connection of the tubing, performance / leak testing of the cascades is to be carried out at full pressure for 4 Hrs, by the Bidder's personnel in presence of BGL Engineer / Technician. Any repairing / replacement required at the time of testing, have to be carried out by the Bidder, free of cost.
26. Testing Certificates, as per Gas Cylinder Rules 2004, for each cylinder shall be submitted within 7 days of testing & erection. The certificates shall be given in one set as original & one set in pdf format.
27. The bidder shall test cascade tubing with pressure for leakage in its workshop.
28. The bidder to ensure strict adherence of BGL schedule for cascade lifting from station, cascade testing , cascade unloading in station, cascade testing in station, defect repair etc. Deviation in date of lifting of cascade from schedule will be treated as defect in service and penalty will be levied on the bidder.
29. All the cascades of BGL are to be tested as per the statutory requirement and any selective testing of cascade will not be accepted and will lead to penalty.
30. Cascade requiring shifting, installation and commissioning for reasons other than cascade hydro testing are also covered in scope of contract. A separate item for loading, unloading, transportation & commissioning of cascade is mentioned in SOR and will be applicable for such shifting work.

Other Terms & Conditions :

1. The Bidder shall ensure strict adherence of all safety rules and regulations of BGL.
2. The Bidder must have valid authorization for testing of CNG cylinders from Chief Controller of Explosives, Nagpur. A copy of the valid authorization has to be submitted along with the offer. The authorization should be valid throughout the tenure of the contract. Offers without the copy of valid authorization from CCOE shall be rejected.

3. BGL reserves the right to check the certificate at any time during the contract period.
4. BGL Engineers will inspect testing at Bidder's site on regular basis. BGL may ask for dispatch of cascade after verification of BGL engineer.
5. 2-way valves, 3-way valves & Pressure Gauges, if required to be replaced, shall be provided by BGL.
6. Appropriate marking showing date of testing shall be provided on each cylinder, as per Gas Cylinder Rules, 2004.
7. The bidder shall fix a plate on cascade with all necessary details including testing date, Due date, testing agency, cascade manufacturing year, cylinder serial numbers included etc. The information plate shall be approved by BGL prior to fixing.
8. The bidder shall submit certificate in hard as well as in soft format as pdf file.
9. The Bidder shall have a valid E Mail ID for day to day communication.
10. The Bidder is required to carry out all services as mentioned in the Scope of Services and Schedule of Rates on all the 365 days including Sundays and all Holidays.
11. The Bidder shall allow weekly rest to his workmen and daily working hours will be fixed as per the relevant Act/Law/and Rule made there under. However, no work shall be left incomplete/unattended on any holiday/weekly rest. The Bidder or his authorized representative shall interact with Engineer-in-charge on regular basis.
12. The Bidder shall provide all statutory /legal facilities to its workmen/employee as per the relevant Act/Law/and Rule including applicable rules and laws of the state.
13. The Bidder agrees to indemnify BGL directly or indirectly any loss or injury caused to BGL employee/agent/customer/public due to careless, negligent, inexperienced act or default of the Bidder, his/her agents, representatives or employees. BGL shall be the sole judge as regards the quantum of loss or damage and it shall be entitled to deduct from the amounts payable hereunder to the bidder, the cost of repairs or the amount of loss or damages.
14. Regarding work completion, the decision of the Engineer-in-Charge will be final and binding.
15. All personnel of the Bidder entering on work premises shall be properly and neatly dressed and shall wear cotton uniform, safety shoes, badges, (identity card) while working on premises of the company including work sites.
16. Bidder shall maintain all statutory records like attendance register, wage register, copies of PF &ESI return etc. Bidder shall submit records to BGL for verification along with the invoices.
17. The Bidder's representative/supervisor shall report daily to the Shift-in-Charge in the control rooms for day-to-day working, during execution of work at BGL sites.
18. The Bidder will strictly adhere to all the safety rules and regulations prevailing and applicable from time to time at the installations as directed by BGL.
19. The rates quoted /agreed by the bidder are inclusive of all the taxes, duties.
20. It will be the responsibility of the bidder to pay as per the minimum wages of the appropriate government rules applicable under the Minimum Wage Act. Bidder shall submit records to BGL for verification along with the invoices.

21. The Bidders shall provide proof in respect of separate PF Code/No of the concerned RPF Commissioner / Authority.
22. Vendor has to consider, within this scope any additional test or requirements, arising out of any revision in statutory notification related to gas cylinder rules.
23. Quantities of cascade as per SOR are tentative and may change as per actual requirement. BGL does not guarantee for quantity of work awarded.

COMPLIANCE CLAUSE: Bidder undertakes to comply with all laws/rules/regulations applicable to his business and on enquiry of the same shall furnish information/documents to BGL within 7 days for such enquiry with BGL.

SCOPE OF WORK AT CCOE APPROVED WORK PREMISES-

1. Contractor shall carry out testing of CNG cascade cylinders at PESO approved testing facility as per Standard IS 5844, IS 8451 (Latest Amendments) and Gas Cylinder Rules 2004.
2. Contractor shall carry out following activities at his works:
3. Unloading of CNG cascade by crane/hydra.
4. Dismantling all fittings, tubes and cylinders.
5. Opening valves and De-gassing the cylinders by Nitrogen gas.
6. Cleaning the cylinders from inside with wire brush.
7. Weighing the cylinder.
8. External inspection (thickness, bulge, burn, dents, dig etc.).
9. Wall thickness measurement with ultrasonic.
10. Internal inspection Ultrasonic thickness test including Boroscopy.
11. Hydrostatic stretch test as per IS 5844 and Gas Cylinder Rules – 2004 in Jacketed method.
12. Steam and vacuum cleaning of cylinders.
13. Drying of Cylinders from inside by Hot air.
14. External sand blasting of cylinders and frame structures.
15. Ultrasonic Flaw detection test
16. Fixing of valves, pneumatic testing.
17. Deshaping of unserviceable cylinders.
18. Cascade painting and marking as per IS 5844, Gas Cylinder Rules 2004.
19. Check the good working condition of valve, threading, burst disc, tubings and fittings.
20. After testing of cylinders, contractor shall carry out loading and fixing of cylinders on cascade frame.
21. Contractor shall carry out refitting and assembling tubes, valves and fittings etc.
22. Bidder shall fix a plate on cascade with all necessary details including test date, due date, testing agency, cascade manufacturing year, cylinder serial numbers etc. The information plate shall be approved by BGL prior to fixing.

SECTION – 8

SPECIFICATION OF WORK

SPECIFICATION OF WORK:

Work shall be carried out as per following safe engineering practices.

1. Degassing.
2. Internal and External examination.
3. Record of test.
4. Marking.
5. Painting.
6. Calculation sheet.
7. History card.
8. Related instrument calibration.
9. Explosive meter check up.
10. Cylinder weight check up.
11. Final inspection.

1. Re-Testing of cylinder:

- 1.1 Shot blasting of cylinder before testing.
- 1.2 Cleaning of cylinders.
- 1.3 Ultrasonic Flaw detection testing of cylinders on parallel portion of the cylinders.
- 1.4 Hydro static stretch testing of cylinders as per Gas Cylinder Rules 2004 and IS 5844.
In Jacketed method.
- 1.5 Issuing test certificates.

2. CNG cylinder valves:

- 2.1 Cleaning and overhauling of complete valves (Teflon packing, gland nut, spindle seat, retainer plate etc.
- 2.2 Burst disc, needle valve checking & replacement if required by BGL.
- 2.3 Testing of all valves for leak/passing by purging Nitrogen up to 150 bar.

3. Cylinder clamps:

- 3.1 Remove the clamps from cascade.
- 3.2 Replace the old studs with the new studs.
- 3.3 Zinc plating the complete clamps
- 3.4 Refix the clamps by using new lock nuts.

4. Cascade Tubing's:

- 4.1 Dismantling the complete SS tubing's.
- 4.2 Checking of all nut & ferrule & cleaning and replacement if required by BGL.
- 4.3 Replacement of Knobs of all valves if required by BGL.
- 4.4 Refixing of tubing, if required replace tubing.
- 4.5 Hydro testing of tubing at 300 bars.

- 4.6 Flushing of complete tubing by using Nitrogen.
- 4.7 Pressure testing, leak checking of cascades tubings, fittings with air/Nitrogen at 255 Kg/cm².
- 4.8 Calibration of SRVs and Pressure Gauges with repairing & replacement with new may be done if found beyond repair.

5. **Cascade Frame:**

- 5.1 Checking of cascade frame for any damage or corrosion.
- 5.2 Repairing the damage parts.
- 5.3 Sand blasting of complete frame including Angles, Brackets & Channels.
- 5.4 Refixing the Angles & Channels by using new Nut Bolts
- 5.5 **Painting(Cascade Frame):**
Primer Coat: 2 coat of Zinc phosphate primer-coating thickness minimum 35 microns(μ) each coat.
Finish Coat: Two coat of Epoxy golden yellow (shade no: 356)-coating thickness minimum 35 microns(μ) each coat.
Total Coating (Primer & finish) Thickness minimum 140 microns (μ)

Painting (Cylinder: As per IS 4379):

- Primer Coat: One coat of Epoxy grey primer -coating thickness 25-30 microns(μ)
Finish Coat: One coat of Epoxy White shade on Cylinder shell & signal Red band (shade no: 537 as per IS: 5-1978) at neck end of cylinder: coating Thickness 40-50 microns (μ)
Total Coating (primer & finish) thickness 65-80 microns(μ)
- 5.7 Two coats of White Epoxy colour shall be applied after proper drying of Primer on the cylinder body & neck shall be painted with PO Red colour as per the Gas Cylinder Rules 2004.
 - 5.8 Two coats of Yellow Epoxy Colour shall be applied after proper drying of Primer on the Cascade frame.
 - 5.9 Ensure that only branded paints shall be used i.e. ASIAN/BERGER/SHALIMAR and certificates should be provided for paint if required by BGL.

6. **Loading & Unloading of CNG Cascade Cylinder:**

- 6.1 Loading/Unloading of CNG Cascade Cylinder shall be carried out either by Hydra or Mobile crane, depending of the requirement of specific job. Any other lifting equipment identified on case basis shall also be included as part of this Contractor's scope.
- 6.2 Mobile crane with Telescopic boom of required capacity shall be used. The capacity of crane shall be calculated by the Contractor prior to start of job keeping in view the load to be lifted and the distance/angle of lift and loading.

SECTION – 9

SPECIAL CONDITIONS OF CONTRACT

1. **Price basis:**

Bidders to quote on the basis of **door deliver** inclusive of all taxes and duties, loading & unloading and installation charges as per scope of work defined in this tender. No additional payment shall be admissible over and above the quoted price.

2. **Validity of quoted rates:**

The rates quoted and accepted shall remain valid for the entire period of contract and no escalation whatsoever permissible after the award of contract.

3. **Taxes and duties:**

The rates quoted and accepted shall include all taxes, duties, service tax and other charges as applicable. BGL shall not entertain any such claim whatsoever on this account.

4. **Payment Terms:**

100% payment within 30 days after submission of invoice along with Test Certificates / Reports certified by Engineer-In-Charge of BGL. Contractor has to submit the invoice against each cascade.

Payment for spares shall be done on actual utilization certified by Engineer-In-Charge.

5. **Completion Period:**

The bidder needs to lift each lot of cascades upto 6 nos. within 10 days from the date of intimation by EIC to be intimated through letter or email.

Completion period of each lot of cascades upto 6 nos. shall be 30 days from the date of lifting of last cascade of each cascade lot.

A lot of cascades consists upto 6 Cascades as decided by EIC.

6. **Work order validity period-**

24 months from the date of LOI/ WO.

7. **Penalty/ PRS:**

a) Delay beyond 10 days from the date of intimation in lifting of last cascade of cascade lots upto 6 nos from BGL's station/ site shall incur a penalty up to Rs 2000/- per week per cascade.

b) Delay beyond 30 days from the date of lifting of last cascade of cascade lots upto 6 nos in commissioning/ installation of tested/ certified cascade at BGL's station/ site after testing of cascade as per the scope of works of tender shall incur a penalty up to Rs 2000/- per week per cascade.

c) Delay beyond 15 days from the date of intimation of defect in quality of work during next 2 months of operation from the date of commissioning of each respective cascade shall incur a penalty up to Rs 2000/- per cascade. The bidder shall have to arrange rectification of defect at no additional cost.

8. **Transit Insurance-**

Transit insurance has to be arranged by Contractor and charges are to be included in SOR.

9. **Performance Guarantee:**

10% of Annualized Work Order value (excluding taxes and duties) in the form of Bank draft/ Banker's cheque or BG (as per attached pro-forma) as Contract Performance Security which will be valid for 06 months from the date of completion of Work order.

10. **Defect Liability Period (DLP):**

03 months from the date of completion Work Order.

11. Retesting Certification issued by PESO/CCOE for carrying out the hydro test of CNG Cascade Cylinders at his premises, according to IS:5846-1993, IS :8451-2009, IS:5844-1970 and gas Cylinder rules-290 should remain valid throughout the period of Work Order.

SECTION – 10

LOCATION OF CYLINDER CASCADES

Description and Location of Cascades due for Hydro testing:

S. No.	Cascade No.	Make	Location	No. of Cylinders of 75 litre water capacity
1	EKCG/BGL-40/255/10	EKC	HYDERABAD	40
2	EKCG/BGL-40/255/12	EKC	HYDERABAD	40
3	RCPL / BGL / 40 / 255 / 10	RCPL	HYDERABAD	40
4	RCPL / BGL / 40 / 255 / 12	RCPL	HYDERABAD	40
5	RCPL / BGL / 40 / 255 / 15	RCPL	HYDERABAD	40
6	EKCG / BGL / 40 / 255 / 04	EKC	HYDERABAD	40
7	EKCG / BGL / 40 / 255 / 05	EKC	HYDERABAD	40
8	EKCG / BGL / 40 / 255 / 15	EKC	HYDERABAD	40
9	RCPL / BGL / 40 / 255 / 01	RCPL	HYDERABAD	40
10	RCPL / BGL / 40 / 255 / 02	RCPL	HYDERABAD	40
11	RCPL / BGL / 40 / 255 / 03	RCPL	HYDERABAD	40
12	RCPL / BGL / 40 / 255 / 07	RCPL	HYDERABAD	40
13	RCPL / BGL / 40 / 255 / 13	RCPL	HYDERABAD	40
14	RCPL / BGL / 40 / 255 / 17	RCPL	HYDERABAD	40
15	EKCG/BGL-30/255/2	EKC	HYDERABAD	30
16	EKCG/BGL-30/255/4	EKC	HYDERABAD	30
17	EKCG/BGL-30/255/01	EKC	HYDERABAD	30
18	EKCG/BGL-30/255/03	EKC	HYDERABAD	30
19	EKCG/BGL/30/255/6	EKC	HYDERABAD	30
20	EKCG/BGL/30/255/5	EKC	HYDERABAD	30
21	EKCG/BGL/40/255/7	EKC	HYDERABAD	40
22	EKCG/BGL/40/255/6	EKC	HYDERABAD	40
23	BPCL	BPCL	HYDERABAD	40
24	EKCG/BGL/40/255/9	EKC	HYDERABAD	40
25	EKCG/BGL/40/255/11	EKC	HYDERABAD	40
26	RCPL/BGL-40/255-18	RCPL	HYDERABAD	40
27	RCPL/BGL-40/255-11	RCPL	HYDERABAD	40
28	EKCG/BGL/40/255/8	EKC	HYDERABAD	40
29	EKCG/BGL/40/255/03	EKC	HYDERABAD	40
30	MKC/BGL/3000/12/0020	MKC	HYDERABAD	40
31	EKCT/BGL-40(M)260-1	EKC	HYDERABAD	40

32	EKCT/BGL-40(S)260-07	EKC	HYDERABAD	40
33	EKCT/BGL/40(M)260-11	EKC	HYDERABAD	40
34	MKC/BGL/3000/12/0025	MKC	HYDERABAD	40
35	RCPL/BGL-S-40/255-K01	RCPL	HYDERABAD	40
36	MKC/BGL/3000/11/001	MKC	HYDERABAD	40
37	MKC/BGL/3000/11/003	MKC	HYDERABAD	40
38	MKC/BGL/3000/11/005	MKC	HYDERABAD	40
39	MKC/BGL/3000/11/006	MKC	HYDERABAD	40
40	MKC/BGL/3000/11/008	MKC	HYDERABAD	40
41	MKC/BGL/3000/11/009	MKC	HYDERABAD	40
42	MKC/BGL/3000/11/014	MKC	HYDERABAD	40
43	MKC/BGL/3000/11/015	MKC	HYDERABAD	40
44	MKC/BGL/3000/11/019	MKC	HYDERABAD	40
45	RCPL/BGL-S-40/255-K-04	RCPL	HYDERABAD	40
46	RCPL/BGL-S-40/255-K-09	RCPL	HYDERABAD	40
47	RCPL/BGL-S-40/255-K-10	RCPL	HYDERABAD	40
48	EKCG/BGL/40(M)/260-08	EKC	HYDERABAD	40
49	EKCG/BGL/40(M)/260-09	EKC	HYDERABAD	40
50	RCPL/BGL/M(40)255-B-03	RCPL	HYDERABAD	40
Total no.of Cylinders for Hyderabad region				1940
1	EKCT/BGL-42/260-01	EKC	VIJAYAWADA	40
2	EKCT/BGL-42/260-02	EKC	VIJAYAWADA	40
3	EKCT/BGL-31/260-07	EKC	VIJAYAWADA	40
4	EKCT/BGL-31/260-03	EKC	VIJAYAWADA	40
5	EKCT/BGL-31/260-02	EKC	VIJAYAWADA	40
6	EKCT/BGL-31/260-08	EKC	VIJAYAWADA	40
7	BGL-163	BPCL	VIJAYAWADA	40
8	BGL-170	BPCL	VIJAYAWADA	40
9	RCPL/BGL-40/255-05	RCPL	VIJAYAWADA	40
10	RCPL/BGL-40/255-06	RCPL	VIJAYAWADA	40
11	EKCG/BGL-40/255-13	EKC	VIJAYAWADA	40
12	EKCG/BGL-40/255-14	EKC	VIJAYAWADA	40
13	EKCG/BGL-30/255-04M	EKC	VIJAYAWADA	30
14	EKCG/BGL-30/255-01M	EKC	VIJAYAWADA	30
15	EKCG/BGL-30/255-08M	EKC	VIJAYAWADA	30
16	MKC/BGL/3000/11/0013	MKC	VIJAYAWADA	40

17	EKCG/BGL-30/255-02M	EKC	VIJAYAWADA	30
18	MKC/BGL/3000/11/0010	MKC	VIJAYAWADA	40
19	EKCG/BGL-30/255-09M	EKC	VIJAYAWADA	30
20	MKC/BGL/3000/11/0016	MKC	VIJAYAWADA	40
21	EKCG/BGL-30/255-05M	EKC	VIJAYAWADA	30
22	MKC/BGL/3000/11/0011	MKC	VIJAYAWADA	40
23	MKC/BGL/3000/11/0012	MKC	VIJAYAWADA	40
24	RCPL/BGL-40/255-04	RCPL	VIJAYAWADA	40
25	RCPL/BGL-40/255-08	RCPL	VIJAYAWADA	40
26	EKCG/BGL-30/255-12M	EKC	VIJAYAWADA	30
27	EKCG/BGL-30/255-10M	EKC	VIJAYAWADA	30
28	EKCG/BGL-30/255-03M	EKC	VIJAYAWADA	30
29	MKC/BGL/3000/11/0004	MKC	VIJAYAWADA	40
30	EKCG/BGL-30/255-11M	EKC	VIJAYAWADA	30
31	EKCG/BGL-30/255-07M	EKC	VIJAYAWADA	30
32	RCPL/BGL-40/255-09	RCPL	VIJAYAWADA	40
33	MKC/BGL/3000/11/0002	MKC	VIJAYAWADA	40
34	BGL-165	BPCL	VIJAYAWADA	40
35	BGL-168	BPCL	VIJAYAWADA	40
36	BGL-169	BPCL	VIJAYAWADA	40
37	BGL-172	BPCL	VIJAYAWADA	40
38	BGL-174	BPCL	VIJAYAWADA	40
39	BGL-167	BPCL	VIJAYAWADA	40
40	BGL-		VIJAYAWADA	40
Total no.of Cylinders for Vijayawada region				1490
1	EKCT/BGL-40S/260-08	EKC	KAKINADA	40
2	RCPL/BGL-40/255-14	RCPL	KAKINADA	40
3	RCPL/BGL-40/255-16	RCPL	KAKINADA	40
4	BGL-173	BPCL	KAKINADA	40
Total no.of Cylinders for Kakinada region				160

Note: Serial Numbers and make of CNG storage cylinders may change as per actual site location.

SECTION – 11
SCHEDULE OF RATES (SOR)



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SCHEDULE OF RATES (SOR)

PART - I					
Sr. No.	Description	UOM	Qty (Total No. Of Cascade Cylinders)	Unit Rate (Rs.) per Cylinder inclusive of all taxed & duties except Service tax	Total Amount (Rs.) inclusive of all taxes & duties except Service tax
1	Re-furbishment, testing and Certification of CNG Cascade cylinders including mandatory hydrotesting of 75 WL capacity of CNG cylinders as per IS-5844 and Gas cylinder Rules 2010; Ultrasonic Flaw Detection Test on parallel portion of CNG cylinders including dismantling and refitting at BGL's site, pneumatic testing at site, re-commissioning, etc. as per scope of work as mentioned in the tender for the period of 3 years as per PESO norms, Gas Cylinder rules 2010 & other applicable standards (latest standards). (Total- 94 cascades of 30/ 40 cylinders in each cascade)	Nos	3590		
Sr. No.	Description	UOM	Qty (Total No. Of Cascades)	Unit Rate (Rs.) per cascade inclusive of all taxed & duties except Service tax	Total Amount (Rs.) inclusive of all taxes & duties except Service tax
2	Transportation of Cascades from BGL's site to work premises and work premises to BGL's site in Hyderabad, loading / unloading at both places, dismantling and refitting at BGL's site, pneumatic testing at site, re-commissioning(including transit insurance) including	Nos	50		



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	Temporary replacement of cascade for continuing the operation at BGL site, (however cascade and spares) shall be provided by BGL				
4	Transportation of Cascades from BGL's site to work premises and work premises to BGL's site in Vijayawada, loading / unloading at both places, dismantling and refitting at BGL's site, pneumatic testing at site, recommissioning(including transit insurance) including Temporary replacement of cascade for continuing the operation at BGL site, (however cascade and spares) shall be provided by BGL	Nos	40		
5	Transportation of Cascades from BGL's site to work premises and work premises to BGL's site in Kakinada, loading / unloading at both places, dismantling and refitting at BGL's site, pneumatic testing at site, recommissioning(including transit insurance) including Temporary replacement of cascade for continuing the operation at BGL site, (however cascade and spares) shall be provided by BGL	Nos	4		
	Total Basic Amount:				
	Service Tax @ ----- %				
	Total Amount Inclusive of All Taxes & Duties (Rs) (A)				



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PART - II

**Tender for ARC for Inspection , Testing and Refurbishment of CNG Cascades at HYD,VJA,KKD
Spares-Hyderabad, Vijayawada and Kakinada**

PART-II

Sr. No.	Optional item (supply & installation)	UOM	Quantity	Unit Rate	Total (Rs.)
1	Cylinder Valve -Vanaz make	No.	12		
2	3/4" SS Ferrule Set, Swagelok/Parker	Set	131		
3	1/4" SS Ferrule Set, Swagelok/Parker	Set	100		
4	Bull Nose Fitting 3/4"(M) x1/2"(F) ,Vanaz make	No.	282		
5	Pressure Gauge Adaptor, Vanaz make	No.	56		
6	Burst Disc/Pressure Rupture Disc(PRD), Vanaz make	No.	1150		
7	3/4 " OD SS Tube, Sandvik make	Meter	35		
8	1/4 " OD SS Tube, Sandvik make	Meter	65		
9	SRV, Size:1/8" Swagelok/Parker make	No.	19		
10	Cylinder valve Knob, Vanaz make	No.	376		
11	3/4 " Nut SS 316, Swagelok/Parker make	No.	131		
12	1/4 " Nut SS 316, Swagelok/Parker make	No.	100		
13	Union Cross 3/4", Swagelok/Parker make	No.	32		
14	Union Tee 3/4", Swagelok/Parker make	No.	37		
15	Check Valve 3/4"OD, Swagelok/Parker make	No.	16		
16	Male Connector 3/4"OD - 1/4" NPT(M), Swagelok/Parker make	No.	35		



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17	Bleede Valve 1/4",SS	No.	20		
18	2-Way valve Manifold block, Swagelok/Parker make	Set	40		
19	3/4" OD 2-way Valve Panel Mount, Swagelok/Parker make	Set	11		
20	Male Connector (1/4" OD Tube x1/4" NPT Male) Swagelok/Parker make	No.	12		
21	Female Bulkhead Connector (1/4" OD Tube x 1/4" NPT-F), Swagelok/Parker make	No.	12		
22	4" Dial Glycerine filled Pressure Gauge (Range 0 to 400 kgf/cm2 with 1/4" NPT-M Bottom end connection)	No.	116		
23	3/4" OD x 3/8" NPT Male Connector, Swagelok/Parker make	No.	12		
24	3/8" Elbow SS 316, Swagelok/Parker make	No.	12		
25	3/8" OD X 1/4" NPT Male Connector, Swagelok/Parker make	No.	12		
26	3/8" Ferrule Set SS 316, Swagelok/Parker make	No.	20		
27	3/8" Nut SS 316 Swagelok/Parker make	No.	20		
28	1/4" Union SS 316, Swagelok/Parker make	No.	12		
29	3/4" Union SS 316, Swagelok/Parker make	No.	20		
30	2 Way Valve Knob	No	28		
31	Spindle Disc for Cylinder	No.	12		



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32	Reducer ¾"ODx1/4"OD,, Swagelok/Parker make	No.	12		
33	Male Connector ¼"ODx1/4" NPTM,, Swagelok/Parker make	No.	12		
34	Fabrication & installation of Gauge Panel	No.	11		
35	Supply & installation of Canopy for Cascades	Sq.m	55		
36	Removal & Re-installation of MS weld mesh Fencing used for barricading of CNG unit area to facilitate removal and re-installation of Cascade mounted on cascade structure/ground. Rate to include breaking of RCC/WBM/Paver blocks, dismantling of welded joints/MS & re-welding/fabrication etc., grouting it to existing position as per direction of EIC	Rm	15		
Total					
Tax, if any (Vat/cst@ ----- %)					
Sub Total Value in PART-II					
Total Value in Rs including all taxes and duties (I + II)					

Note:

- 1) Bidder should quote for all the items in Part I and Part II. Partial Bidding is not allowed.
- 2) The utilization and payment of the items under Part II are at actuals.
- 3) Tender will be evaluated on overall L1 basis.