

ONGC TRIPURA POWER COMPANY LIMITED

TECHNICAL SPECIFICATION

FOR

HORTICULTURE MAINTENANCE

AND

LANDSCAPING SERVICES

2 X 363.3 MW

GAS BASED COMBINED CYCLE POWER PLANT,

PALATANA, UDAIPUR, TRIPURA

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OTPC

TECHNICAL SPECIFICATIONS FOR HORTICULTURE MAINTENANCE AND LANDSCAPING AT 2 X 363.3 MW GAS BASED COMBINED CYCLE POWER PLANT AT PALATANA, TRIPURA

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SCOPE OF SERVICES

1.0 It is clearly understood by the parties that in respect of Services to be provided by Contractor under the Contract, responsibility of Owner shall be limited to provide earth and Contractor shall be responsible for providing all other Services required for horticulture maintenance and landscaping.

In this Technical Specification, capitalized terms used but not defined shall have the meaning assigned to them under the contract dated [•] (the "**Contract**").

2.0 **GENERAL OBLIGATION OF THE CONTRACTOR**

- 2.1 The Contractor shall obtain, at its expense, all Permits required to be obtained by the Contractor, to allow it to carry on its business and provide the Services under the Contract.
- 2.2 Pursuant to the Contract, the Owner is contracting for the Services of the Contractor, as an independent contractor, to (a) maintain horticulture and landscapes in the Plant, and (b) develop new landscape in accordance with the Contract.

3.0 SERVICES

3.1 In furtherance of and without limiting the obligations and responsibilities of the Contractor specified in the Contract, the Contractor shall, at all times commencing from the Effective Date and continuing through the Term and in accordance with the provisions of the Contract, perform the services specified hereunder (the "**Services**"). For the convenience only, Services have been categorized. However, any Services envisaged under the Contract to be provided by Contractor, irrespective of their categorization, shall be provided as and when required.

3.2 HORTICULTURE & LANDSCAPES MAINTENANCE

- 3.2.1 Routine maintenance activities of lawn having different types of grass including without limitation:
- 3.2.1.1 Watering;
- 3.2.1.2 Deweeding;
- 3.2.1.3 Cultivation and cutting of hedges etc;
- 3.2.1.4 Pruning and clipping of hedges etc.
- 3.2.1.5 Mowing;
- 3.2.1.6 Top dressing with good earth, manure etc;
- 3.2.1.7 Sweeping;
- 3.2.1.8 Applying manure and fertilizers;
- 3.2.1.9 spraying pesticides and insecticides;

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- 3.2.1.10 Protection from pests and diseases;
- 3.2.1.11 Repair of patches by preparation of soil by digging, leveling and planting new grass of same variety;
- 3.2.1.12 Disposal of refuse / waste;
- 3.2.2 Stacking, preparation and planting of seasonal flowers, making basins of tree pits and hoeing.
- 3.2.3 Maintenance of existing flower beds including alteration wherever required by planting summer and winter seasonal flowers and perennial flowers.
- 3.2.4 Plant trees, shrubs etc as and when required.
- 3.2.5 Prepare and maintain indoor and outdoor plants in pots at designated locations.
- 3.2.6 Routine maintenance activities of landscapes in respect of existing garden features which includes, without limitation, lawn, beds, topiary, perennial beds, rockeries, erecters, climbers, shrubs, trees, self-grown trees and complete removal of rank vegetation and bushes etc. It shall include all minor repairs of the garden features damaged due to digging in the area, natural calamity or any other reason
- 3.2.7 Adequate watering of all garden features, trees, hedges, shrubs etc using sprinklers or hose pipes. Contractor shall make his own arrangement of water pumps, hose pipes etc wherever and whenever required. Contractor shall ensure that unnecessary wastage of water does not occur at any time and shall protect the irrigation fittings / hydrants and irrigation system etc installed at Plant. Any damage to existing irrigation system due to negligence by Contractor shall be made good by the Contractor at his own cost.
- 3.2.8 Manure and fertilizers as and when required in sufficient quantum shall be applied under the directions of Project Manager. Cost of manure and fertilizers is included in Contract Price.
- 3.2.9 Periodic check for pests and diseases. In the event of infestation, prompt spraying of appropriate insecticides, fungicides and pesticides shall be performed so as to completely eradicate the infestation. Cost of insecticides, fungicides and pesticides is included in Contract Price.
- 3.2.10 Lawn mowing, hedge cutting and hedge shaping as per the direction of Project Manager but in no case less than once in every 15 days i.e. two times in a month. Lawn mowing, hedge cutting and hedge shaping shall be done in such a manner to give lawn and hedge neat, clean, tidy and even look.
- 3.2.11 Clipping and trimming of hedges and edges, trimming of shrub plant, trees, creepers etc at regularly at intervals as directed by Project Manager.
- 3.2.12 Cultivate seasonal flower of at least six (6) variety in each season and make flower beds at the Plant.
- 3.2.13 Prepare an inventory of trees and plants at the start of work, number the trees and display identification placards for each tree.
- 3.2.14 Provide all tools, tackles, instruments, materials etc required for horticulture and landscaping maintenance work

3.2.15 Provide protective equipments like safety shoes, gloves, helmet, gumboots etc as applicable as per the nature of the work to all the Contractor Staff.

3.3 LANDSCAPING

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- 3.3.1 Apply at least 225 mm garden soil for lawn area and farm yard manure as per the recommendation of Project Manager;
- 3.3.2 Level the ground;
- 3.3.3 Mix earth, sand and manure in proportion as specified;
- 3.3.4 Provide and spread good earth and manure in required thickness;
- 3.3.5 Treat the soil with chemicals including pesticides, fungicides etc and control soil pests;
- 3.3.6 Provide and plant Korean / Selection-1 grass;
- 3.3.7 Maintain the grass so as to form a thick lawn free from weeds and fit for movement;
- 3.3.8 Prepare bed for planting hedge and shrubs by excavating to specified depth and trenching the excavated base to a further depth of 30 cm, refilling it with good earth mixed with manure in the ratio specified, flooding with water, leveling, fine dressing, disposing surplus material, spreading & leveling surplus earth within a lead of 50 mtr and lift up to 1.5 mtr;
- 3.3.9 Prepare land for planting trees by digging pits in ordinary soil and refilling the same with good earth mixed with manure in the ratio as specified, flooding with water, dressing including removal of rubbish and surplus earth, if any, with all leads and lifts. Trees shall be planted in a pit size of 60 cm x 60 cm and shall be stacked properly;
- 3.3.10 Provide and plant best quality container grown healthy trees and plants of specified height, shrubs, creepers, hedge plants etc as approved by Project Manager.

3.4 **GENERAL SPECIFICATION**

3.4.1 Plant

3.4.1.1 All plant materials shall be healthy, sound, vigorous, free from plant diseases, insects, pests or their eggs and shall have healthy and well-developed root system. All dead or decayed plants shall be replaced with new plants whenever necessary for which price is included in Contract Price. All plant shall be hardy under climate conditions similar to those in the locality of the Site. No plant material shall be accepted if branches are damaged or broken. Plants shall be of specified height. All materials shall be protected from the Sun and weather elements until planted. All plants shall confirm to the requirement specified by the Project Manager except that plants larger than specified may be used if approved by Project Manager provided Contract Price shall remain unchanged on this account.

3.4.2 **Topsoil / Good Earth**

3.4.2.1 Top soil or good earth shall be friable loam typical. It shall be free from subsoil stones, earth clods, stubbles, weeds or other extraneous matter or debris. It shall contain no toxic material. No topsoil

shall be delivered in a muddy condition. The pH value of soil shall be ensured between 6.5 and 7.5 by periodic and random testing of soil in any reputed laboratory.

3.4.3 **Manure**

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3.4.3.1 Well decomposed farm yard manure/organic shall be used. It shall be free from sticks, paddy strain, stones, earth, weed, seed, extraneous matter, harmful bacteria, insects, chemicals etc.

3.4.4 **Root System**

3.4.4.1 Root system shall be conducive for successful transplantation. Wherever necessary, root-ball shall be preserved by support with hessian cloth or other suitable material. On soils where retention of a good root-ball is not possible, the roots shall be protected in other ways. The roots system shall be free from nematodes and other pests.

3.4.5 Fertilizer

3.4.5.1 Fertilizing shall be carried out by application oin rotation of the following fertilizers every day from the beginning of monsoon till the end of winter:

3.4.5.1.1	Organic well-rotted dry farmyard manure	:	0.05 Cu Mtr per tree
3.4.5.1.2	Nitrogen	:	15 lbs / 1000 sq feet
3.4.5.1.3	Phosphorous	:	30 lbs / 1000 sq feet
3.4.5.1.4	Potash	:	15 lbs / 1000 sq feet

3.4.6 **Replacement of damaged grass**

3.4.6.1 Contractor shall be responsible for damage, failure or dying of grass due to heat, pest, disease etc and shall make good them by planting new grass of same variety.

3.4.7 Lawn Grass

- 3.4.7.1 Planting / dibbling of lawn grass: After preparation of land, watering shall be done regularly to allow the weeds to grow. After 15 days grass shall be separated and planting shall be done at a spacing of 7-10 cm. After planting of grass, watering and weeding shall be done regularly.
- 3.4.7.2 Turfing of lawn grass: After preparation of land, leveling, watering and consolidation shall be done. After this thin layer of sand shall be spread followed by laying of grass at uniform level.

3.4.8 Planting of Shrubs / Trees

- 3.4.8.1 Planting shall be done at the specified spacing as directed by Project Manager. For planting, plants shall be taken out from containers while protecting root-ball. Plants with damaged root-ball shall be rejected.
- 3.4.8.2 The plants shall be planted plumb and shall be centered in the planting pit or trench. Backfilling shall be done immediately after planting. Any excess soil which is not used for backfilling the planting pits shall be evenly distributed in the landscape area. Immediately after planting, all plants



shall be thoroughly irrigated until the backfill soil around and below the roots or root-ball of each plant is saturated. Stacking shall be done immediately after planting.

3.4.9 Maintenance of lawns /Korean / Selection-1 grass

- 3.4.9.1 The lawn shall be regularly mowed with lawn mower without appearing dry patches. The side grass shall be trimmed with grass cutter.
- 3.4.9.2 Pruning of shrubberies shall be done with proper hedge trimmer or garden shear only.
- 3.4.9.3 The height of grass shall not be allowed to increase beyond 60 mm. The minimum height of grass shall be maintained as 25 mm. The height shall be measured from top of the soil surface. The grass shall be kept free from all kinds of weeds, pests and diseases.
- 3.4.9.4 The grass lawns shall be kept constantly rolled to give cushioning effect to the grass. Manuring of grass lawns shall be done regularly to keep the grass green

3.4.10 **Trees**

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3.4.10.1 Stacking shall be done immediately after planting. Tree basis shall be formed around the tree. The area around the tree plant up to a minimum two feet from the trunk of the tree plants shall be kept free from grass and all kinds of weeds. Trimming and pruning of the trees and hoeing of the area around the trees shall be done regularly. The trees shall be watered regularly. Hoeing shall also be done after every watering. For proper upkeep of the trees unwanted brances af the trees / tree plants shall be cut and removed at regular intervals as required and as directed by Project Manager. The tree plants/trees shall be kept free of any disease, insects or pests by regularly spraying insecticides/pesticides as required and as directed by Project Manager. To keep the tree plants / trees healthy manure shall be applied based on the required and as directed by Project Manager. The appropriate manure, fertilizers, insecticides, pesticides etc. along with spraying machine and manpower required shall be provided by the contractor

4.0 **MANPOWER:**

- 4.1 The contractor should maintain the minimum daily labors/manpower as per the following:
- 4.1.1.1 Project In charge 01 nos.
- 4.1.1.2 High skilled Labours cum field Supervisor- 01 Nos.
- 4.1.1.3 Skilled types Labours- 05 Nos
- 4.1.1.4 Local Unskilled type Labours- 15 Nos
- 4.2 Educational qualification/experience details of the manpower-
- 4.2.1.1 Local labors unskilled type As per the approved labors list & familiar with horticulture activities.
- 4.2.1.2 Skilled labors type- 8-10 Years' experience in horticulture maintenance activities. Valid work experience certificates shall be produced during the time of joining.
- 4.2.1.3 High skilled labor cum field supervisor- H.S. pass and 8-10 years' experience in horticulture maintenance activities. Valid academic qualification & work experience certificates shall be produced during the time of joining.

- 4.2.1.4 Project in Charge- Graduate in any stream (Graduate in agriculture or horticulture is preferable) with 10 years' experience in Horticulture maintenance activities. Valid academic qualification & work experience certificates shall be produced during the time of joining.
- 4.3 The contractor should take prior approval of the CV/Biodata of the manpower before deployment of the worker. If any change in the manpower group happen, the contractor should get those manpowers approved it accordingly on advance basis.
- 4.4 The contractor should submit PF submission challan, master roll copy, wages copy etc. on or before 10th in every month without fail.
- 4.5 The contractor should give contract letter/joining letter/appointment letter to every worker of this project during the time of joining in this site. After acceptance a copy of the letter should be given to the OTPC for record purpose.

5.0 **MAINTENANCE TOOLS & TACKLES**

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- 5.1 Contractor shall arrange and provide all the tools, tackles and instruments required in adequate number for providing Services under the Contract. Price for deploying these items is included in the Contract Price. Indicative list of tools, tackles and instruments is given in Clause 5.2. This list is not exhaustive and Contractor shall deploy all tools, tackles and instruments required for providing Services under the Contract. If Owner believes that any additional tools and tackles or instruments are required to be mobilized by Contractor, same shall be mobilized by the Contractor without any delay and without any additional cost to Owner.
- 5.2 Indicative list of tools, tackles and instruments to be mobilized by Contractor is following:
- 5.2.1 Diesel operated lawn mowers three (3) numbers
- 5.2.2 Bush cutter machine four (4) numbers
- 5.2.3 Electric operated lawn mowers one (1) number
- 5.2.4 Material Handling Trolley four (4) numbers
- 5.2.5 Sprinklers along with adapters for watering the lawns twenty (25) numbers
- 5.2.6 Hose pipe of various diameters adequate length as per requirement
- 5.2.7 Hedge cutting scissors ten (10) numbers
- 5.2.8 Trowel- ten (10) numbers
- 5.2.9 Crowbar two (2) numbers
- 5.2.10 Electric bush cutter two (2) numbers
- 5.2.11 Hand operated side cutter scissors ten (10) numbers
- 5.2.12 Rose cutter two (2) numbers

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- 5.2.13 Khurpi twenty (20) numbers
- 5.2.14 Weeding khurpi twenty (20) numbers
- 5.2.15 Spray machine of 15 / 20 Ltr capacity two (2) numbers
- 5.2.16 Gardener watering cane five (5) numbers
- 5.2.17 Nirani twenty (20) numbers
- 5.2.18 Spade and hovel twelve (12) numbers
- 5.2.19 Small hand tractor-01 numbers (on requirement basis)
- 5.2.20 Watering pipe & pump as per requirement.
- 5.2.21 Other equipment/machineries as per the requirement.

6.0 **EXCLUSION FROM SCOPE OF SERVICES OF CONTRACTOR**

- 6.1 Material storage area;
- 6.2 Water; and
- 6.3 Electricity.

7.0 HORTICULTURE MAINTENANCE REPORT

- 7.1.1 The contractor should submit daily report on day to day basis with actual work done progress with pictures at the end of the day by e-mail/hard copy.
- 7.1.2 The contractor should submit monthly progress report with actual pictures of the site at the end of the month.

8.0 **PERFORMANCE & WORK SUPERVISION**

- 8.1.1 Over all supervision to be done by OTPC representative of horticulture maintenance & services and shall look after overall coordination. The Supervisor/project in charge from the contractor's side will report to the representative of OTPC on daily basis and appraise of the man power engagement status and quality of service being rendered. The contractor will have to ensure the activity so as to match the quality of service as expected by OTPC.
- 8.1.2 Regular supervision to be carried out by the contractor's representative and monitored by the representative of OTPC on day to day basis. Accordingly, contractor or contractors representative have to be available during general shift hours and accessible on round the clock basis to receive information/instruction from OTPC side. The contractor shall generate schedule and records of each activity / attendance log on daily basis for periodic supervision by OTPC.

9.0 **Duties and responsibilities of the contractor**



- 9.1.1 To provide services of Supervisor, labors, as may be necessary for the aforesaid work and to deploy necessary manpower accordingly.
- 9.1.2 To engage responsible Project Managers/Supervisors for overall supervision of the aforesaid works. The Project Manager/in charger should be provided with one mobile phone set for necessary communication. Accordingly, the supervisor should be readily available for contact through his mobile as and when required.
- 9.1.3 To supervise the above referred services and to bear the responsibility for proper conduct and behavior of the persons engaged by him for rendering such services.
- 9.1.4 The Contractor should possess Labour License and all other relevant License and will be responsible for detailing of project Manager/Supervisor and labors.
- 9.1.5 The contractor shall engage only adult, trained and competent persons who are physically fit and are not suffering from any chronic or contagious diseases for carrying out the maintenance works. Medical fitness report of deployed manpower should be submitted within 10 days of deployments.
- 9.1.6 The contractor will supervise the services of personnel engaged by him and will be responsible for proper conduct and behavior of the persons rendering such services.
- 9.1.7 The contractor shall be responsible and liable for payment of salaries, statutory minimum wages and other legal dues to the persons who are employed by him/her for the purposes for rendering the services as per laws. Written records for having made these payments will be submitted to OTPC, on monthly basis, for its verification. All payments should be done online or as per labour law.
- 9.1.8 The contractor shall maintain neatly, completely and legibly registers, records, reports and returns for inspection by various authorities at short notice.
- 9.1.9 The agreement will be on the principal to principal basis and the contractor shall not, without the prior written permission of the Company, directly or indirectly enter into partnership or agreement with any other person or organization to run any service thereof.
- 9.1.10 The contract is subject to the terms as contained herein. Nothing contained herein shall be considered as creating a tenancy, demises or any interest in their favor in respect of any portion of the building/premises. The contractor will be allowed to use the premises in terms of the agreement and shall vacate the premises immediately on termination of the agreement or expiry of contract.
- 9.1.11 The Contractor shall take WCA insurance or equivalent of all of his employees for adequate insurance coverage.
- 9.1.12 Provide protective equipment like safety shoes, gloves, helmet, gumboots, raincoat, umbrella etc as applicable as per the nature of the work to all the Contractor Staff.
- 9.1.13 The contractor shall provide distinct uniform's to his employees. The uniform should have logo of the contractor's firm/company and shall be kept neat, tidy and in a wearable condition.
- 9.1.14 The contractor shall supply identity cards to his/her employees or agents who shall be doing the subject job at the Owner's premises. All the employees and agents should bear the identity card for all the times they are working in Owner's premises

- 9.1.15 The contractor shall obtain Police Verification report on character and antecedents of its personnel and other details relating to age, educational qualification, name and permanent address to be provided under this contract along with their passport size photographs before engaging them for duty in Owner's Premises.
- 9.1.16 In case of any loss or damage to the Company's property by any persons engaged by contractor, the contractor shall report in writing such loss/damage to the management immediately and recovery of amount shall be made. The Company may in the event of unsatisfactory performance of the contractor to perform the work, terminate this agreement by giving one month notice in writing for such termination. This will be without prejudice to other rights (i.e. Penalty etc) company may have as specified in the terms & condition.
- 9.1.17 The persons engaged by the contractor must not be found under influence of alcohol/tobacco of any form/cigarette/bidi/drugs/cannabis etc within premises of the plant at any time.
- 9.1.18 The Company does not take responsibility for the accommodation of the employees of the contractor.
- 9.1.19 The contractor shall arrange for round the clock services as and when occasion arises.
- 9.1.20 No transport will be provided for employees of the contractor.
- 9.1.21 The Company reserves the right to recover reasonable cost of materials lost or damaged by the contractor or his employees.
- 9.1.22 Nothing contained herein above will absolve the contractor of his responsibility of serving the Company in the best possible way with high standard of quality services.
- 9.1.23 The contractor shall purchase all the machineries & equipment as mentioned in the clause no- 5 and should maintain those without shortfall.
- 9.1.24 In unforeseen situation like strike/bandh, the contractor shall make suitable arrangement to undertake horticulture activities without any interruption.
- 9.1.25 Bonus to be paid to the workers once in a year before Durga Puja.

10.0 **Penalty Clause :**

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- 10.1 Non Compliance of work: In the event of failure of compliance of awarded work in stipulated time penalty will be imposed as per double of actual expenditure incurred in attending to the same by other Agency.
- 10.2 Absenteeism: In case of absence of any staff, penalty will be imposed at double the rate of wages or salary for the day he remains absent.
- 10.3 Penalty will be also be levied for the following, which is not exhaustive.

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1	Damage to OTPC assets or equipment's etc., caused by the contractors staff	Cost of assets will be levied as penalty
2	Refusing or non-performance of the assigned work within the time limit set by OTPC Representative	Rs.150/- per occasion.
3	Misbehavior like quarreling, abusing etc., between the staff employed by the agency, causing disturbance in the premises:	Rs.500/- per occasion with removal of staff
4	Your staff not reporting in Uniform and I-card	Rs.100/- per person per occasion
5	Absence of any provisions for creating new Flower, Foliage, etc. as per the technical specifications shall attract	Rs. 1000/- per month
6	Machine not available for working consequently for 2 days.	Rs. 1000/- per week after first 2 days.
7	Failure to keep the Pots polished throughout the year	Rs. 100/- per day
8	Failure to use Pesticides, insecticide, Fertilizers etc. as per technical specifications.	Rs. 100/- per day per plant shall be levied till the period the same are replaced, at no extra cost.
9	Failure to arrange as per clause 5.0 of Technical specifications.	Rs. 500/- per day
10	Any staff deputed by the contractor found smoking and/or chewing tobacco in the OTPC Campus	Rs.500/- per occasion with removal of staff
11	In case the Agency does not fulfill the contractual obligation to use proper fertilizers, manure Pesticides, insecticide etc. at proper time and proper way, the same shall be done by the OTPC at the cost and risk of the Agency. The money will be recovered from the contractor through the RA monthly bills. This is to ensure that OTPC Campus is maintained properly.	Rs. 1000/- + recovery of cost incurred by OTPC
12	Failure to carry out any of the weekly services on time	Rs.500/- per occasion

10.4 Penal deduction will also be made for any other poor services on the basis of assessment by OTPC representative and the defaulting staff posted by you should be replaced immediately. Repeated defaults in services shall result in higher penal deductions. Decision of OTPC with respect to extent of penalties being levied shall be final and binding on the contractor.