



**Centre for High Technology  
(Ministry of Petroleum & Natural Gas)**

**Request for Selection (RFS) document  
for  
Selection of Project Developers  
for  
Commercial Scale 2G Integrated Bioethanol Projects  
under  
Pradhan Mantri JI-VAN Yojana**

**RFS No. CHT/PM JI-VAN/RFS/Commercial/2019/01**

**Dated: 26.08.2019**

**ISSUED BY**

Centre for High Technology  
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DISCLAIMER:

1. Though adequate care has been taken while preparing the RFS document, the Project Developers shall satisfy themselves that the document is complete in all respects. Intimation of any discrepancy shall be given to this office immediately. If no intimation is received from any Project Developer within **twenty (20) days from the date of notification of RFS/ Issue of the RFS documents**, it shall be considered that the RFS document is complete in all respects and has been received by the Bidder.
2. Centre for High Technology (CHT) reserves the right to modify, amend or supplement this RFS document.
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Place: Noida

Date: \_\_\_\_\_

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# **Section 1**

## **INTRODUCTION, BACKGROUND & SCHEME DETAILS**

## Section 1

### **Introduction, Background & Scheme Details**

#### **1.1 INTRODUCTION**

- 1.1.1. Centre for High Technology (CHT) was established as a dedicated technology cell of Ministry of Petroleum & Natural Gas (MOP&NG) in 1987 to assess futuristic requirements, acquire, develop and adopt technologies in the fields of refinery processes, petroleum products, work relating to modernisation of technologies etc. CHT takes up programmes for performance evaluation, improvement, capability development, technical services etc. for Indian Refineries on a centralized basis. CHT is engaged in promoting indigenous technologies through sponsoring R&D projects and their commercialisation in the downstream sector.
- 1.1.2. Government of India through Ministry of Petroleum & Natural Gas (MoP&NG), has notified “Pradhan Mantri Jaiv Indhan- Vatavaran Anukool fasal awashesh Nivaran (JI-VAN) Yojana” vide Extraordinary Gazette of India no. 1037 dated 08.03.2019 for providing financial support to Integrated Bioethanol Projects using lignocellulosic biomass and other Renewable feedstock with an aim to set up Second Generation (2G) ethanol projects across the country.
- 1.1.3. The scheme envisages setting up of 12 Commercial scale and 10 demonstration scale 2G Bioethanol projects. The scheme will be implemented in Phase-wise manner. Under Phase-I (2018-19 to 2022-23), 6 Commercial projects and 5 demonstration projects will be supported. Under Phase-II (2020-21 to 2023-24), remaining 6 commercial projects and 5 demonstration projects will be supported.
- 1.1.4. For Commercial projects, Viability Gap Funding subject to a maximum of 20% of the project cost OR Rs. 5 crore for every 10 lakh litres summed to Biorefinery’s annual name plate capacity, whichever is lesser, will be provided to make the projects commercially viable. The maximum financial outlay per project has been capped at Rs 150 crore.  
  
For example, for a project cost of Rs 800 crore for generating 3.20 crore litres of 2G ethanol per annum, financial assistance of Rs. 150 crore will be provided. In case, the cost for a project having annual 2G Ethanol capacity of 2 crore litres is Rs. 600 crore, the grant to the tune of Rs 100 crore will be provided.
- 1.1.5. For demonstration projects, the financial assistance will be limited to Rs. 15 crore per Technology.
- 1.1.6. The total cost of the project includes cost of land, cost of total equipment and their erection including biomass supply chain and handling, civil & mechanical work including plant building & sheds, cost of utilities, electrical & instrumentation controls, enabling assets (water & power intake), water and waste management system, preoperative and commissioning charges, working capital, interest during construction and also charges of technology, royalty, charges towards PMC/EPCM services and charges of any special erection involved, besides any contingent expenses.

- 1.1.7. The financial assistance/ grant component for the commercial projects will be released in four stages achieving respective milestones as under:

<b>Project Milestones</b>	<b>Grant payment</b>	<b>Cumulative Grant</b>
Erection/ Installation of Proprietary equipment	25%	25%
Completion of mechanical erection of the Project	25%	50%
On reaching 25% of annual production capacity of design value subsequent to mechanical completion and commissioning of Project	25%	75%
On reaching 75% of annual production capacity of design value	25%	100%

- 1.1.8. Scientific Advisory Committee (SAC) of Ministry of Petroleum & Natural Gas (MoP&NG) is designated as nodal body for appraising and recommending the eligible Project proposals under the Scheme.
- 1.1.9. Projects deemed fit for seeking grant under the Scheme by SAC will be approved by Steering Committee of CHT under the chairmanship of Secretary, MoP&NG for disbursement of funds under the grant.
- 1.1.10. CHT is designated as Nodal Agency for implementation of the scheme and shall provide requisite Secretarial assistance to SAC for selecting eligible Project Developers under the Scheme.
- 1.1.11. This Request for Selection document (hereinafter called RFS for commercial scale projects) has been prepared in line with the guidelines notified in Gazette dated 08.03.2019 by MoP&NG and subsequently incorporating recommendations of SAC. This RFS is only for commercial scale projects.
- 1.1.12. CHT invites proposals for Selection of Project Developers for providing Financial Assistance to set up 6 Commercial scale 2<sup>nd</sup> Generation Ethanol Projects based on lignocellulosic biomass and other renewable feedstock under Pradhan Mantri JI-VAN Yojana.

## 1.2 **BACKGROUND**

- 1.2.1 Government of India has emphasized on achieving energy security of the country with a target of reducing import dependence i.e. usage of fossil fuels by 10% from 2014- 15 levels by the year 2022. This target is to be achieved by adopting a five pronged strategy which includes, Increasing Domestic Production, Adopting Biofuels & Renewable, Energy Efficiency Norms, Improvement in Refinery Processes and Demand Substitution. This envisages a strategic role for biofuels in the Indian Energy basket. The growing concern about the import dependence for fuel requirement in tandem with environmental pollution issues have driven the need for biofuels that have superior environment benefits and are economically competitive with fossil fuel.
- 1.2.2 National Policy on Biofuels – 2018 is aimed at accelerated promotion of Biofuels with indicative targets of achieving 20% blending in Petrol and 5% blending in Diesel by 2030. In

this direction, Oil Marketing Companies (OMCs) are marketing Ethanol Blended Petrol with percentage of ethanol up to 10% as per the BIS specifications to achieve a target of 10% blending by 2022 on Pan India basis.

- 1.2.3 In order to meet 10% ethanol blending target with a projected demand for petrol in 2021-22, about 450 crore litres of ethanol would be required. The estimated production of bioethanol in the country is around 300 crore litres, a large part of which is required for potable alcohol and chemical industries and the balance is used for Ethanol Blending Petrol (EBP) programme. Though new routes (from B heavy molasses, sugarcane juice, damaged food grains & surplus food grains) for enhancing ethanol procurement by OMCs has been opened by the Government of India, the ethanol procurement from first generation route may not be sufficient to achieve 10% ethanol blending during 2021-22.
- 1.2.4 Second Generation (2G) Bioethanol is produced from agricultural residues and by-products, organic wastes; most preferably woody, grassy and waste materials as a feedstock; and biodegradable fractions of municipal & industrial waste. The studies indicate that Lignocellulosic surplus biomass availability in India is around 12-16 crore tons per annum. If exploited, this has potential to yield 2500 to 3000 crore liters of Ethanol per annum and has potential to reduce India's dependence on imported crude oil considerably.
- 1.2.5 2G Ethanol Bio-refineries, apart from producing Cellulosic Ethanol, also produces Pellets (from surplus lignin); Biogas (which can be upgraded to Bio CNG); liquid CO<sub>2</sub>/ Dry Ice (for supplies to Poly Houses & Cold Storages, which would support Horticulture activity) & assured quality Compost (which will increase farm yields & reduce chemical fertilizer consumption). Thus 2<sup>nd</sup> Generation Bio-refineries would be integrated Bioenergy projects.

### 1.3 **DETAILS OF THE SCHEME**

- 1.3.1 Project Developers (hereafter referred to as PDs) selected by CHT based on this RFS, shall set up commercial scale Second Generation (2G) Bioethanol projects (based on non-food biomass feedstocks and other renewable feedstocks) in accordance with the provisions of this RFS document.
- 1.3.2 PDs can also obtain grant from State Governments/PSUs/Other Agencies up to 20% of the total project cost. Therefore, total grant taken from the Central Government and State Government/PSUs/other Agencies shall not exceed 40% of the total project cost.
- 1.3.3 PDs will have to mandatorily undertake Ethanol Purchase Agreements (EPA) with Oil Marketing Companies (OMCs) in prescribed format for assured procurement of ethanol. The entire 2G ethanol produced from the Commercial projects supported under this Scheme shall be mandatorily supplied to OMCs for the purpose of blending in Petrol. If PD is an Oil Marketing Company (OMC), Ethanol Purchase Agreement (EPA) shall not be required.
- 1.3.4 PDs shall have to submit necessary Detailed Feasibility Report (DFR) along with Biomass Assessment/ waste assessment, supply chain & logistics report duly vetted by a Third party consultant. The DFR should clearly indicate cost involved on various aspects like technology procurement, establishment of plant, Royalties, consultations and any other incidentals which will require any payment to outside agencies from India. Details in relation to proposed sales revenue generated from sale of 2G Ethanol & other by-products produced in the Biorefinery shall also be clearly stated in the DFR.

- 1.3.5 Project proposals is expected to be based on integrated approach for end to end utilisation of biomass for production of ethanol and other value added products. Bioethanol produced shall be meeting out the BIS standards applicable for blending with petrol.
- 1.3.6 PDs shall have Technology licensing Agreement with their proposed Technology provider. In case, the PD is the Technology licensor, the same shall not be required.
- 1.3.7 The proposed land for the project shall be available with PD before submitting its application to the RFS.
- 1.3.8 PDs shall have committed source for enzymes. PD shall furnish documents regarding sourcing of enzyme before release of 2<sup>nd</sup> instalment of VGF i.e. after completion of mechanical erection of the Commercial Project.
- 1.3.9 PDs shall have undertaken trials of proposed Technology and proposed feedstock for the project. Results of such trials shall be shared at the time of RFS.
- 1.3.10 PDs to have entered into EPCM (Engineering, Procurement & Construction Management) Contract/ other execution mode as PMC & EPC/ OBE with reputed organization having proven track record. Preference will be accorded to applicants, whose EPCM/ PMC & EPC/OBE Contractor has established operations in India and, thereby, can optimise local sourcing.
- 1.3.11 All proposals should be annexed with the validated life cycle analysis (LCA) report of the proposed 2G Ethanol Technology for meeting the eligibility criteria of advanced biofuels.
- 1.3.12 The Commercial Projects should be designed for inter-connection with the OMC depots. PDs shall ensure the connectivity of OMC depot before commissioning the project for efficient delivery of 2G Ethanol.
- 1.3.13 PD shall have entered into a Three years (with a renewable option of two years) contract for operation and maintenance from the vendor/technology supplier or by the PD himself. PD shall submit the document regarding Agreement for O&M before release of 2<sup>nd</sup> instalment of VGF i.e. after completion of mechanical erection of the Project. In case, PD himself is doing O&M, only self-declaration may be submitted at the time of RFS.
- 1.3.14 PDs shall have Three years (with a renewable option of two years) contract for supply of biomass which can be revised as per the mutual consent of the Biomass supplier as well as Bioethanol project developer. PD shall furnish Biomass agreement before release of 2<sup>nd</sup> installment of VGF i.e. after completion of mechanical erection of the Commercial Project.
- 1.3.15 PDs / Promoters may include working capital as part of the total project cost.
- 1.3.16 For setting up Commercial projects, PD eligible under the scheme would be State Govt. enterprises, Central Public Sector undertakings & Private Entities as per eligibility criteria defined under Section-3.
- 1.3.17 CHT shall maintain necessary guarantees and legal formalities for channelizing the grant.
- 1.3.18 Project proposals submitted to CHT will be based on the prevailing Ethanol price fixed by the Government. Projects will also be eligible for policy provisions arising out in future.
- 1.3.19 Each Technology applying under Commercial projects will be eligible for maximum of four projects. If any additional projects(s) are possible within budget of the scheme, fifth project

or more may also be considered by the SAC in case the proposals with other technologies are not received against RFS.

- 1.3.20 The project cannot be transferred or sold to a third party without consent of the Government.
- 1.3.21 PDs and CHT shall enter into suitable Agreement creating a charge over the Project assets in favour of CHT and for ensuring the disbursement of grant to credible PDs.
- 1.3.22 CHT shall have a pari passu charge over the Project assets in case of Projects being financed by other lending institutions/banks.
- 1.3.23 CHT may incorporate suitable provisions regarding arbitration and seat of arbitration in the agreement to be entered between CHT and selected PDs under the scheme.
- 1.3.24 In case the lending institution exercises its right to step in or take over the project, CHT will also have right to step in along with the lending institution.
- 1.3.25 PDs shall be liable for all IPR, licencing and foreign trade issues during the period of the project.
- 1.3.26 PDs shall also ensure that licensor of the technology has appropriate Freedom to operate (FTO).
- 1.3.27 PDs shall obtain all statutory approval before commissioning of plant.
- 1.3.28 PDs shall obtain Statutory clearance under National Biodiversity Act, if applicable
- 1.3.29 Decision of the SAC and Steering Committee with regard to selection of PDs eligible under the scheme shall be final & binding on all interested PDs.
- 1.3.30 SAC will review the minimum distance criteria of the proposed Biorefinery with other Advanced Biofuel projects based on biomass availability at the proposed location by Project developer, on case to case basis.
- 1.3.31 The PD, on the award of grant, is required to sign a contract agreement with CHT to ensure the timely completion of the projects set up under the scheme and to safeguard interest of the Government.
- 1.3.32 PD shall inform any change in the project after submission of proposal against RFS and obtain consent of CHT.

# **Section 2**

## **DEFINITIONS**

## Section 2

Following terms used in the document will carry the meaning and interpretations as described below:

### **Definitions**

**2G Bioethanol:** Ethanol produced from biomass and cellulosic materials such as bagasse, wood waste, agricultural & forestry residues, grasses etc. The produced ethanol should meet BIS standards IS 15464 (2004).

**Biomass** resources are the biodegradable and non-edible fraction of products, wastes and residues from agriculture, forestry and related industries as well as the biodegradable fraction of industrial and municipal wastes.

**Waste** is any substance or object which the holder discards or intends or is required to discard. Raw materials that have been intentionally modified to count as waste (by adding waste material to a material that was not waste) shall not be considered as qualifying under this Scheme.

**2G Bioethanol Project Developer (PD)** means any Company, Consortium of Companies or a Joint Venture (JV)/ Special Purpose Vehicle (SPV) interested in seeking the grant.

**Consortium:** Group of Companies that have collectively submitted their interest in availing the benefits under the scheme and agreed to manage the proposed project collectively.

**Lead partner of the PD:** In case PD is a JV/ SPV or Consortium, there shall be one lead member having at least 49% of the shareholding in the JV/SPV or consortium, which cannot be changed till 5 years from the Commercial Operation Date (COD) of the project.

**Project Commissioning:** Project is termed as commissioned when all equipments as per rated project capacity have been installed, the product of desired specifications is achieved from the process unit and bioethanol supplies to OMCs is commenced.

**SAC:** Scientific Advisory Committee (SAC) of Ministry of Petroleum & Natural Gas (MoP&NG)

**CHT:** Centre for High Technology, a body under the aegis of MoPNG

**Steering Committee:** Steering Committee of CHT under the chairmanship of Secretary, MoP&NG

## **Section 3**

# **BID INFORMATION AND INSTRUCTION TO BIDDERS**

## Section 3

### **BID INFORMATION AND INSTRUCTIONS TO BIDDERS**

3.1 The Salient features of RFS are as follows:

RFS No.	<b>CHT/PM JI-VAN/RFS/Commercial/2019/01</b>
Purpose	<b>Selection of Project Developer (PD) under PM JI-VAN Yojana for Commercial scale 2G Ethanol Projects</b>
Inviting Authority	Name: Mr P. Raman Designation: Director Centre for High Technology OIDB Bhawan, Tower A, 9 <sup>th</sup> Floor, Plot No. 2, Sector – 73, Noida, Pin – 201316 Uttar Pradesh, India Phone No. +91 120 2593703 Fax No. +91 120 2593780 Email: <a href="mailto:raman.pucha@cht.gov.in">raman.pucha@cht.gov.in</a>
Start date & time	<b>26.08.2019 14:00 hrs.</b>  RFS can be downloaded from CHT website <a href="http://www.cht.gov.in">www.cht.gov.in</a> & <a href="https://eprocure.gov.in/epublish/app">https://eprocure.gov.in/epublish/app</a>
Last Date & time of Submission	<b>22.11.2019 &amp; 14:00 hrs. IST</b>
Opening Date & Time	<b>25.11.2019 &amp; 15:00 hrs. IST</b>
Mode of submission	Proposals to be submitted in 6 sets of hard copies. In addition, Soft copy (CD, pen drive, email) to be submitted to RFS inviting authority on or before last date of submission.
CHT PAN Number	AAATC0412A
CHT GST Number	07AAATC0412A1ZR

PD shall indicate the full postal address, name of the contact person along with telephonic / tele-fax numbers and email address.

### 3.2 **Technical Pre-Qualification Criteria**

3.2.1 PDs shall meet any one of the following criteria:

- a. Experience in Crude Oil Refining or any other industrial domain like Sugar, Food Processing, Paper, Steel, Textile, Cement for at least 2 years continuous operation
- b. Experience in operating continuous process plants for Chemical or Petrochemical production/ handling at least for 2 years after PGTR with minimum 20 KTA capacity
- c. Experience in marketing of fossil fuels or Biofuel blended fossil fuels viz., MS, HSD or ATF for 2 years after date of incorporation under the Company Act.

- d. Experience of manufacturing/ marketing of Renewable fuels (Bioethanol, Biodiesel, Biomethanol, Bio-CNG, Drop-in fuels) for 2 years after date of commissioning of manufacturing unit or incorporation of marketing company under the Factory Act.
- e. Experience in Production/handling of at least 0.1 million tonne per annum large quantities of waste biomass
- f. Technology licensor having technology for converting Biomass into 2G Ethanol
- g. A Central Govt. or State Govt. Department, PSU or a local civic body with a mandate of addressing environment pollution

3.2.2 PDs which have commenced mechanical erection of their projects before starting of this scheme will not be eligible to avail the benefits of the scheme. However, Twelve 2G Ethanol Projects of Oil PSUs, as notified to MoP&NG, shall be eligible for availing the benefits of scheme, if required, in case the mechanical erection of the Project has been commenced but not completed.

3.2.3 “Bolt on” plants & “Brownfield projects- are not eligible under the scheme’

3.2.4 Foreign investors proposing to set up 2G Ethanol Project in India are also eligible for availing the benefits of the scheme. However, all statutory provisions related to foreign investment in such projects i.e., FDI limit etc. would be applicable.

“For foreign investor, policy framework on Foreign Direct Investment Consolidated FDI Policy (Effective from August 28, 2017) issued by Department of Industrial Policy and Promotion Ministry of Commerce and Industry Government of India, or as updated/ amended from time to time shall apply”.

### 3.3 Commercial Pre-Qualification Criteria

3.3.1 Proposed Technology of the PDs should have been demonstrated at one fiftieth (1/50th) or higher Capacity, in India or elsewhere. PDs shall submit operational data of 3 months (cumulative or continuous) duration of at least 50% capacity of demonstration/ commercial plant or 1 month (cumulative or continuous) duration for name-plate (100%) capacity of the demonstration/ commercial plant of the proposed Technology for the project for ascertaining the performance of Technology. A team of experts may be entrusted by SAC for due diligence of the demonstration/commercial unit based on which commercial plant is proposed and the recommendation of the SAC shall be final.

3.3.2 **Turnover:** The annual turnover during any of the preceding three financial years from the date of RFS publication should be at least Rs 250 Crore (excluding GST/ Excise Duty).

In case the RFS date is within 06 (six) months from end date of preceding financial /accounting year, then audited financial Statement (Balance Sheet, P&L & Cash Flow) for earlier 3 preceding financial years to be submitted.

If RFS date is more than 6 months from the end date of preceding financial /accounting year, then audited financial Statement (Balance Sheet, P&L & Cash Flow) for 3 preceding financial years to be submitted.

3.3.3 Net Worth of an Entity should be positive on the date of previous year ending for which balance sheet has been prepared.

Net Worth means the aggregate value of the paid-up share capital and all reserves created out of the profits and securities premium account, after deducting the aggregate value of the accumulated losses, deferred expenditure and miscellaneous expenditure not written off, as per the audited balance sheet, but does not include reserves created out of revaluation of assets, write-back of depreciation and amalgamation.

#### 3.4 **No-Go Condition**

The following categories of projects/promoters will be ineligible for financial support under the scheme:

- a. Declared wilful defaulters, as per RBI norms
- b. Declared Non-cooperative borrowers, as per RBI norms
- c. Entities who have availed one time settlement (OTSs); are not eligible under the scheme.

#### 3.5 **Guidelines for IRR calculations**

- 3.5.1 Bioethanol produced from these projects blended with petrol will result in to reduction in GHG emissions, however the impact of the carbon credit will not be considered in project evaluation.
- 3.5.2 The Financial analysis shall produce an estimate of the financial inputs, outputs, gains and Viability Gap Funding requirement of the Project. The Financial analysis shall be made on the basis of year-wise cash flow of the project. Financial analysis to be shown in both scenarios i.e. with VGF and without VGF.
- 3.5.3 The analysis must cover the computation of key decision criterion like Internal rate of return, net present value (NPV) of cash flows, debt service coverage ratio (DSCR), break even (BE) analysis etc.
- 3.5.4 Financial analysis of capital investment proposals shall be carried out based on realistic set of assumptions duly considering present prices of input/ output, market forces, etc.
- 3.5.5 The life of assets from the date of completion of the project shall be assumed as per life determination given in Schedule-II of the Companies Act, 2013 or 25 years whichever is less.
- 3.5.6 The Debt: Equity ratio of 50:50 shall be considered (excluding VGF).
- 3.5.7 The initial investment shall comprise of the total project cost as indicated in the proposal and shall also include incremental value of working capital. The capacity utilization shall be taken as per the technical estimates [100% by 3<sup>rd</sup> Year]
- 3.5.8 The determination of operating cash flows shall provide the YoY operating income, input/ raw material cost, operating expenses etc., during the project life. Operating income of a project represents total realization or savings from the operations, after implementation of the project.
- 3.5.9 Feedstock (biomass) price on dry basis shall be considered based on tariff proposed by Central Electricity Regulatory Commission vide Order: 11.01.2019 (CERC RE Tariff Order 2019-20) and thereafter as advised by CERC from time to time. The state wise rates as per Tariff Order 2019-20 are given in the Annexure-1 along with proposed escalation factor. The prices have been derived by escalating the notified prices of first year of control period by 5%. For each subsequent year of the Tariff Period, a normative escalation factor of 5% per annum shall be applicable, unless reviewed and ordered otherwise by the Commission. The CERC price shall be used only for normalizing the proposals for assessing degree of viability.

- 3.5.10 Till any further guideline is issued by the Govt., the price of 2G ethanol to be taken at maximum rate, as presently applicable for 1G ethanol ex-mill price of ethanol derived from 100% sugarcane juice for those mills (who will divert 100% sugarcane juice for production of ethanol thereby not producing any sugar) for IRR calculation as applicable on the date of submission of RFS. As GST and transportation charges are payable additionally, ex-mill price as indicated above shall be used. Price of other products shall be considered as prevailing in the market at the time of RFS.
- 3.5.11 Landed cost of inputs/ raw material shall include all incidental costs involved including the taxes. However, the taxes for which the input credit is available shall not be considered in cost.
- 3.5.12 The operating expenditure of the project shall include cost of the feedstock, Enzymes, chemicals, consumables, utilities (like power, water, and fuel) repairs and maintenance, wages and salaries, rent and insurance, depreciation, other administrative expenses etc.
- 3.5.13 The expenses under these various heads shall be as per agreements, contracts and be based on estimated realistic set of assumptions and experience, wherever applicable. The basis for estimating the expenditure shall be clearly indicated in the proposal. The terminal cash flow shall mainly represent the salvage value of the project plus release of incremental working capital.
- 3.5.14 Salvage value shall be considered for Land to be valued at original cost and for other items as the book value determined under the Companies Act, 2013. The net cash flow shall be estimated on 'after tax basis', as payment of taxes is an outflow of cash. Similarly, tax shield/ benefit allowable due to financial charges like Interest on Debt, etc., shall also be considered appropriately in the cash flows.
- 3.5.15 Corporate tax to be considered on the project on standalone basis. Loss, if any, to be carried forward for adjustment with future profit. Minimum Alternative Tax (MAT) to be considered, wherever applicable.
- 3.5.16 All deductions / rebates/ benefits etc. wherever available under the income tax act to be considered.

**3.6 Process Flow Chart for Approval of VGF (Given in Annexure-2)**

- 3.6.1 CHT shall issue RFS for selection of PD for providing VGF.
- 3.6.2 PDs shall submit their proposals including duly vetted DFR & other documents as per RFS.
- 3.6.3 SAC shall appraise the proposals and recommend to Steering Committee.
- 3.6.4 Steering Committee shall accord in-principle approval for grant of VGF
- 3.6.5 The PD shall report tie-up of Financing Arrangements for the total project cost within 3 months from the date of receipt of in-principle approval. The Validity of the in-principal approval will be 3 months from the date of its issuance.
- 3.6.6 PD shall submit the proposal including financial commitment Letters etc. for Final Approval.
- 3.6.7 SAC shall appraise the proposals if required.
- 3.6.8 Steering Committee shall accord final approval for grant of VGF

- 3.6.9 CHT & PD shall execute Memorandum of Agreement (MoA).
- 3.6.10 VGF shall be disbursed as per MoA.
- 3.7 **Documents to be submitted by PD at the time of RFS**
  - 3.7.1 Documents meeting Technical and Commercial Pre-Qualification Criteria
  - 3.7.2 IRR of the project as per section 3.3
  - 3.7.3 Detailed Feasibility Report (DFR)
  - 3.7.4 Biomass Assessment/ waste assessment, supply chain & logistics report duly vetted by a Third party consultant
  - 3.7.5 Technology licensing Agreement with their proposed Technology provider
  - 3.7.6 Document regarding land availability for the project
  - 3.7.7 Results of trials of proposed Technology and proposed feedstock for the project
  - 3.7.8 Validated life cycle analysis (LCA) report of the proposed 2G Ethanol Technology for meeting the eligibility criteria of advanced biofuels.
  - 3.7.9 Self-declaration, if PD himself is doing operation & maintenance.
  - 3.7.10 Contract Agreement for supply of biomass with Biomass supplier
  - 3.7.11 Ethanol Purchase Agreements (EPA) with Oil Marketing Companies (OMCs). Format of Agreement shall be uploaded shortly. If PD is an Oil Marketing Company (OMC), Ethanol Purchase Agreement (EPA) shall not be required.

**Please note that decision of the SAC and Steering Committee with regard to selection of PDs eligible under the scheme shall be final & binding on all interested PDs.**

Thanking you,

Yours faithfully,

**(P. Raman)**  
**RFS Inviting Authority**  
**(For and on behalf of Centre for High Technology)**

### Biomass price as per tariff proposed by Central Electricity Regulatory Commission

The Commission, as per Regulation 42 of the RE Tariff Regulations, has proposed the Biomass fuel price during third year of the Control Period (i.e. FY 2019-20) in the table below. The prices have been derived by escalating the notified prices of first year of control period by 5%. For each subsequent year of the Tariff Period, a normative escalation factor of 5% per annum shall be applicable, unless reviewed and ordered otherwise by the Commission.

State	Biomass Price for FY 2018-19 (Rs. /Tonne)	Biomass Price for FY 2019-20 (Rs. /Tonne)
Andhra Pradesh	3016.88	3167.72
Haryana	3433.91	3605.61
Maharashtra	3512.09	3687.69
Punjab	3591.59	3771.17
Rajasthan	2997.33	3147.20
Tamil Nadu	2967.35	3115.72
Uttar Pradesh	3069.00	3222.45
Other States	3226.70	3388.04