

**Expression of Interest (EOI)  
for  
Selection of Firm/Industry for setting up of  
Paddy Straw based Briquetting Plant (2TPH)  
in  
Punjab, India**

**EOI Document No.: PSCST/CC/EOI/002**

**November 2016**



**PUNJAB STATE COUNCIL FOR SCIENCE &  
TECHNOLOGY, CHANDIGARH**  
(A State Govt. Undertaking)

**With Financial Support of**



**Ministry of Environment, Forest & Climate Change (MoEF&CC),  
Gol, New Delhi**

## PUNJAB STATE COUNCIL FOR SCIENCE & TECHNOLOGY

### **PSCST INVITES EXPRESSION OF INTEREST (EOI) FOR SELECTION OF FIRM/ INDUSTRY FOR SETTING UP OF PADDY STRAW BASED BRIQUETTING PLANT (2TPH) IN THE STATE OF PUNJAB.**

#### **1. INTRODUCTION**

Punjab State Council for Science & Technology (PSCST) is a State Government Undertaking and a Scientific & Industrial Research Organization approved by DSIR & Central Government under Clause (ii) of Sub-Section (i) of Section 35 of Income Tax Act, 1961. PSCST endeavors to harness the potential of Science and Technology as an instrument of socio-economic change and acts as a catalytic agent for transferring technologies from the laboratory to the field.

The Ministry of Environment, Forest and Climate Change (MoEF&CC), GoI has sanctioned project titled “**Technological Adaptation for Gainful Utilization of Paddy Straw**”, to PSCST for setting up of two paddy straw based briquetting units in two different geographical locations (Southern/Central and Northern zone) of Punjab. In the first phase, one briquetting unit is to be set up, preferably in central Punjab for production of briquettes made of paddy straw in combination with other biomass/bio-residues. These briquettes are proposed to be used by 7-8 brick kilns in the vicinity of the plant. A monetary assistance to the maximum extent of 70% of the capital cost for purchase of new machinery for paddy straw briquetting plant will be provided to the selected Firm/Industry.

As part of this endeavor, PSCST invites Expression of Interest (EOI) from the interested Firms/Industries, willing to set up paddy straw based briquetting unit, mainly in central Punjab with salient features of the Project are as under:

<b>Nature of Plant to be installed</b>	Paddy Straw Briquetting Plant
<b>No. of Plants</b>	1 No. ( <i>in Phase-I</i> )
<b>Plant Capacity</b>	2 TPH
<b>Feedstock</b>	Paddy Straw ( $\geq 80\%$ ) + Other Biomass/Bio-residue ( $\leq 20\%$ )
<b>Expected Production</b>	5000 Tons of briquette per annum
<b>Monetary Assistance</b>	Upto 70% of the capital cost of machinery for setting up of paddy straw briquetting plant (Approx. Rs. 50 lakhs)
<b>Industry Share</b>	<ol style="list-style-type: none"><li>I. 30% of the capital cost of machinery for setting up of paddy straw briquetting plant.</li><li>II. Infrastructure<ul style="list-style-type: none"><li>• Land – 3 acres (Open space required for storage of raw material at one location or different locations)</li><li>• Shed Area – 3000 Sqft (minimum 40 feet width for setting up of briquetting plant &amp; storage of finished products)</li><li>• Power (Connected load) – 200KW</li></ul></li></ol>

## 2. OBJECTIVE OF THE PROJECT

The project aims at adaptation and demonstration of paddy straw briquetting technology and use of briquettes made from paddy straw in combination of other biomass/bio-residues as fuel in brick kilns. This would promote gainful utilization of abundantly available paddy straw in the State of Punjab. The successful demonstration of technology is expected to create demand of paddy straw briquette as fuel in brick kilns thereby replacing the use of fossil fuels. The demand of paddy straw would discourage paddy straw stubble burning, leading to reduction in equivalent GHG emission resulting in improvement in ambient air quality.

## 3. SCOPE OF WORK

The project envisages setting up of complete briquetting plant of 2 TPH capacity with complete set up comprising of paddy straw chopper, pulverizer, storage bin, briquetting machine, dust separation and collection system along with other infrastructure for storage of raw material as well as finishing products. It is also expected that the industry would invest in purchase of raw material, operating costs and its marketing costs. The industry shall have tie-up with 7-8 brick kilns in the nearby brick cluster for regular supply of paddy straw briquettes throughout the brick kiln operating seasons.

The scope of work broadly includes:

- a) The selected Firm/Industry would collect & transport paddy straw from nearby agricultural fields. It is envisaged that around 4000 tonnes of paddy straw would be collected by the Firm/Industry during paddy harvesting season. The Firm/Industry would also collect and store 1000 tonnes of other biomass/bio-residues for its combined use with paddy straw. The Firm/Industry should have adequate space available for the storage of paddy straw & other biomass at the site of briquetting plant. The collection & transportation cost for the paddy straw & other biomass would be borne by the Firm/Industry.
- b) The Firm/Industry should have minimum 3 acres of land (*Open space required for storage of raw material at one location or different locations*) and 3000 Sqft. shed area (*minimum 40 feet width for setting up of briquetting plant & storage of finished products*) for setting up of 2TPH capacity briquetting plant to manufacture 5000 tonnes of briquettes annually.
- c) The Firm/Industry is required to obtain electricity connection (connected load) of 200 KW for running of the briquetting plant.
- d) The technical specifications of the various components & vendor for their purchase for setting up of 2TPH briquetting plant would be finalized by the Expert Committee constituted by PSCST for the purpose.
- e) The Firm/Industry is expected to operate the briquetting plant in two shifts to produce 25 TPD of briquettes.
- f) The expenditure incurred towards purchase of raw material, operation & maintenance of plant (including consumables) and marketing/selling of briquettes would be by the Firm/Industry.

- g) The Firm/Industry should have tie up with 7-8 bricks kilns in the vicinity of briquetting plant for supply of briquettes on continuous basis to ensure its sustainability.
- h) The technical-know-how for establishing the use of paddy straw briquettes in the brick kilns shall be facilitated by PSCST.
- i) The Firm/Industry shall be liable to obtain statutory licenses and regulatory approvals from the competent authorities of the different departments wherever required.
- j) The Firm/Industry should ensure to operate the briquetting plant on sustainable basis atleast for a period of 3 years from the date of commercial production of briquettes.

The setting up of paddy straw briquetting plant is an R&D project being funded by Ministry of Environment, Forest and Climate Change (MoEF&CC), GoI. Therefore, PSCST will not be liable for financial transactions and profit/loss of the selected Firm/Industry.

#### **4. ELIGIBILITY CRITERIA FOR SUBMISSION OF EOI:**

##### **4.1 Technical Criteria**

- a) The Firm/Industry should have minimum 3 acres of owned or leased land (*lease for atleast upto year 2025*) and minimum 3000 Sqft. shed area for setting up of 2TPH capacity briquetting plant to manufacture of 5000 tonnes of briquettes annually.
- b) The Firm/Industry should have a minimum 3 years experience in manufacturing of biomass based briquettes.
- c) The Firm/Industry should have tie up with 7-8 bricks kilns in the vicinity of paddy straw briquetting plant for supply of paddy straw briquettes on continuous basis (proof of the same to be submitted in the prescribed format as per Annexure-III).
- d) The Firm/Industry should ensure to operate the briquetting plant on sustainable basis atleast for a period of 3 years for the intended purposes.
- e) The Firm/Industry is required to obtain electricity connection (connected load) of 200 KW for running of the paddy straw briquetting plant.
- f) The briquetting plant should be appropriately located for ease of collection & transportation of raw material.

##### **4.2 Financial Criteria**

- a) The Firm/Industry should have cumulative turnover of atleast 150 lakhs in the last three financial years.
- b) The Firm/Industry should have enough financial strength to invest towards land cost, capital cost to build 3000 Sqft shed, 30% of the capital cost of machinery, electricity connection (200KW) and to arrange for the operation & maintenance of the briquetting plant.

## 5. GENERAL INSTRUCTIONS:

- a) Applicants must acquaint themselves fully about the project before submitting the EOI.
- b) The hard copy of the EOI shall be submitted at the address given below. EOI received through Fax / E-mail shall not be accepted.
- c) PSCST reserves the right to reject any or all EOI received without assigning any reason.
- d) PSCST reserves the right to assess applicant's capabilities and capacity to execute the work using in-house information and by taking into account other aspects such as concurrent commitments and past performance.
- e) The EOI must be complete in all respect leaving no scope for ambiguity. It is in the interest of the applicant to submit complete and comprehensive proposal leaving no scope for PSCST to raise any further questionnaire. PSCST may evaluate the vendor on the basis of documents submitted in the first instance in order to adhere with project schedule requirement.
- f) The applicant shall submit the documents as per checklist provided at Serial no. 7 for expressing their interest.
- g) PSCST reserves the right to call for original documents submitted for verification, if required and also to cross check any details as furnished by the applicant from their previous clients/consultants. The applicant shall have no objection whatsoever in this regards and shall facilitate PSCST to obtain the same.
- h) PSCST will not be responsible for any cost or expenses incurred by the applicant in connection with preparation or delivery of EOI or any other expenses during evaluation of EOI.
- i) All revisions, clarifications, corrigenda, addenda, time extensions etc., to the EOI will be hosted on [www.pscst.gov.in](http://www.pscst.gov.in). The applicant should regularly visit this website to keep themselves updated.
- j) PSCST reserves the right to reject any Proposal/EOI, if at any time, a material misrepresentation is made or discovered, or the applicant does not provide the responses sought by PSCST within the stipulated period.

## 6. SUBMISSION OF EOI

The applicant is required to submit the complete proposal/EOI document along with **all the supporting document duly signed and stamped on each page** at the following address by the due date and time in a sealed envelope superscribing EOI No., Industry's name, address and Due Date/time:

**Senior Engineer, Consultancy Cell,  
Punjab State Council for Science and Technology,  
MGSIPA Complex, Adjacent Sacred Heart School  
Sector 26, Chandigarh -160019**

**Applications complete in all respect shall be submitted on or before 30<sup>th</sup> November 2016 by 3.00 pm and shall be opened on the same date at 3:30 pm at the above address. The PSCST shall not be responsible for any postal delay.**

Proposal/ EOI submitted at any other place is liable to be rejected.

Clarification (if any) can be obtained from Sh. Amit Kumar, Assistant Engineer, PSCST through E-mail: [stcouncilpb@gmail.com](mailto:stcouncilpb@gmail.com) or Mobile: +91-98140-87411.

## **7. CHECKLIST**

The following documents must be submitted along with the covering letter of EOI/Proposal;

- a) Undertaking by the interested party (on Affidavit).....Annexure-I
- b) Willingness to Participate in the Project.....Annexure-II
- c) Tie-ups/ Agreements with Brick Kilns .....Annexure-III
- d) Documents in support of meeting the eligibility criteria related to infrastructure & experience in use of paddy straw i.e.:
  - i. Proof of owned/leased land (Copy of ownership and Jamabandi).
  - ii. Detailed layout plan of shed including site plan, if existing.
  - iii. Proof of Electricity connection, if existing.
- e) Documents supporting the financial capability of the interested party i.e.:
  - i. Audited balance sheet for the last three financial years (2013-14, 2014-15 & 2015-16).
  - ii. ITR details for the last three financial years (2013-14, 2014-15 & 2015-16).
  - iii. Details of source of proposed investment.

**Undertaking from the Interested Party**  
(on Affidavit of Rs.100/- Attested by Notary)

I, ....., S/o ..... resident of  
..... proprietor/partner of  
M/s .....  
do hereby solemnly affirm & declare as under:

1. That I have completely understood the objectives of the project; for Setting up of Paddy Straw based Briquetting Plant (2 TPH).
2. That If selected, I will setup paddy straw based briquetting plant in the near future, but not later than 31.07.2017 and make required investments towards the briquetting plant, in consultation with PSCST.
3. That, I shall provide the infrastructure i.e. land (3 Acres), shed (3000 ft<sup>2</sup>) & electricity connection (200KW) as per the requirement of the plant.
4. That, I shall bear 30% of the capital cost of machinery for setting up of briquetting plant.
5. That, I will provide proof of our financial capability to invest in the project to PSCST.
6. That, I shall bear the operation and maintenance cost including cost towards purchase of raw material and its transportation from the revenue generated on selling of paddy straw briquettes.
7. That I will operate the plant for **at least 3 years** from the date of commercial production.
8. That I agree to place my unit for baseline & post-implementation resource audit studies to be conducted by PSCST. I will allow PSCST, MoEF&CC team or its authorized representative to visit the facility and observe the performance of the plant.
9. That, I have tied up with 7 or more units (Brick Kilns etc.), for using paddy straw based briquettes manufactured by our plant.
10. That I will start the paddy straw briquette production in paddy harvesting season succeeding immediately after the installation/commissioning of the plant.
11. That I will manufacture minimum of 5000T paddy straw based briquettes per annum, having greater than or equal to 80% paddy straw by weight composition.
12. That in case of selection, I hereby undertake to submit a performance bank guarantee equal to the monetary financial assistance to be provided by the government under the said project. The bank guarantee can be encashed in case of breach of the commitments made under the project.

**DEPONENT**

**WILLINGNESS TO PARTICIPATE IN THE PROJECT**

1.	Name of Authorized Person/ Owner <i>(in Capital Letters)</i>		
2.	Complete postal Address		
3.	Name of Unit/Industry		
4.	Contact Details	Mobile	
		Fax	
		Email ID	
5.	Is your unit a registered firm?	<input type="checkbox"/> Yes  <input type="checkbox"/> No	
5.1	<i>If Yes, registered under</i>	<input type="checkbox"/> SSI	
		<input type="checkbox"/> MSME	
		<input type="checkbox"/> Registration No.	
		<input type="checkbox"/> CST/VAT No.	
6.	Present Business		
7.	Company Turnover during Financial Year  <i>(Rs. In Lakhs)</i>	2013-14	
		2014-15	
		2015-16	



8.	Availability of Infrastructure		
8.1	Land	<input type="checkbox"/> $\geq 3$ Acres	
		<input type="checkbox"/> 1-3 Acres	
		<input type="checkbox"/> $\leq 1$ Acre	
		<input type="checkbox"/> No land	
8.2	Shed Area	<input type="checkbox"/> $\geq 3000$ Sqft.	
		<input type="checkbox"/> 1000-2999 Sqft.	
		<input type="checkbox"/> $< 1000$ Sqft.	
		<input type="checkbox"/> No shed	
8.3	Existing Sanctioned Load	<input type="checkbox"/> $\geq 200$ KW	
		<input type="checkbox"/> $\geq 100$ KW	
		<input type="checkbox"/> $< 100$ KW	
		<input type="checkbox"/> No Electricity connection	
9.	Do you have existing biomass briquetting Plant?	<input type="checkbox"/> Yes	
		<input type="checkbox"/> No	
	<i>If Yes, Provide Details</i>	<input type="checkbox"/> Plant Capacity (in TPH)	
		<input type="checkbox"/> Started in year	
		<input type="checkbox"/> Biomass used for briquetting	
<input type="checkbox"/> Annual Sale of Briquettes (in Tons)			
10.	Experience in the field of biomass briquetting	<input type="checkbox"/> $\geq 3$ Years	
		<input type="checkbox"/> 1 to 2 Years	
		<input type="checkbox"/> Nil	

11.	Interested to participate in setting up briquetting plant for briquettes of	<input type="checkbox"/> ≥80% Paddy Straw & Rest other Biomass/ Bio-residue	
12.	Other Biomass/Bio-residue in combination with paddy straw <i>(Please tick in the relevant block)</i>	<input type="checkbox"/> Press Mud <input type="checkbox"/> Saw Dust <input type="checkbox"/> Cow Dung <input type="checkbox"/> Mustard Straw	<input type="checkbox"/> Cotton Stalks <input type="checkbox"/> Peanut Straw <input type="checkbox"/> Guar Husk <input type="checkbox"/> Heena Straw
13.	Availability of Paddy Straw & other Biomass	<b>Paddy Straw</b> <input type="checkbox"/> Less than 20 Kms. <input type="checkbox"/> Less than 40 Kms. <input type="checkbox"/> More Than 40 Kms.	<b>Other Biomass/Bio-residue</b> <input type="checkbox"/> Less than 20 Kms. <input type="checkbox"/> Less than 40 Kms. <input type="checkbox"/> More Than 40 Kms.
14.	Tie up with Brick Kilns for supply of Paddy straw Briquettes	<input type="checkbox"/> ≥10 Units	
		<input type="checkbox"/> 5-9 Units	
		<input type="checkbox"/> 1-4 Units	
		<input type="checkbox"/> Zero	
15.	Any other relevant information		

Date:

(SIGNATURE)  
With seal of Industry

(on letterhead of *Brick Kiln/ Unit/ Industry, willing to use Paddy Straw based briquettes*)  
**Tie-up/Agreement with Industry**

To,

Mr.....

M/s. .... (Name of Industry, willing for setting briquetting plant)

.....

.....

Subject: Tie-up with..... (Name of Industry, willing for setting briquetting plant)

Dear Sir,

Further to our discussion, regarding use of paddy straw based briquettes as fuel in our unit, we are ready to partially/fully replace our existing fuel with paddy straw based briquettes manufactured at your plant. It is to confirm that we will purchase paddy straw based briquettes as per our requirement from your plant under mutually agreed terms & conditions for a period of five years.

(Signature)

Name.....

Designation.....

**Format for Covering Letter**

(on letterhead of interested party, willing to setup Paddy Straw based briquetting unit)

To,

The Senior Engineer,  
Consultancy Cell,  
Punjab State Council for Science and Technology,  
MGSIPA Complex, Adjacent Sacred Heart School,  
Sector 26, Chandigarh -160019.

Subject: **Expression of Interest for setting up of paddy straw based briquetting plant.**

Sir,

Being duly authorized to represent and act on behalf of M/s. ....  
(hereinafter referred to as "the Applicant"), and having reviewed and fully understood the eligibility criteria and information provided, the undersigned hereby apply in response to the EOI document No. PSCST/CC/EOI/002 dated: 11/11/2016, for setting up of paddy straw based briquetting plant of capacity 2 TPH at ..... (*location*)

We are enclosing our Expression of Interest with the details as per the requirements of the EOI document, for your evaluation.

Yours faithfully, \_\_\_\_\_

(Signature of Authorised Signatory)

(Name, Title and Address)

Documents attached:

- I. Annexure-I
- II. Annexure-II
- III. Annexure-III
- IV. Technical Capability Docs (Pls. mention different documents separately)
- V. Financial Capability Docs (Pls. mention different documents separately)