

Bio Coal Briquettes

White Coal, Bio-Coal, Bio Coal
Making Unit, Biomass Briquettes
from Agricultural Cellulosic Waste

Manufacturing Plant, Detailed Project Report, Profile, Business Plan, Industry Trends, Market Research, Survey, Manufacturing Process, Machinery, Raw Materials, Feasibility Study, Investment Opportunities, Cost and Revenue, Plant Economics, Production Schedule, Working Capital Requirement, Plant Layout, Process Flow Sheet, Cost of Project, Projected Balance Sheets, Profitability Ratios, Break Even Analysis

Introduction

Bio Coal Briquetting is the process of converting agricultural waste into high density and energy concentrated fuel briquettes. Bio Coal Briquetting plants are of various sizes which converts agricultural waste into solid fuels. Briquettes are ready substitute of Coal/wood in industrial boiler and brick kiln for thermal application.

Bio Coal briquettes are Non conventional Source of energy, Renewable in nature, Eco friendly, non polluting and economical. Process of converting agricultural waste to solid fuel is also non polluting. It has not required to add any binder / chemicals so it is 100 % natural.

What are the advantages of setting up Agro Waste briquettes Plant Project?

- Easy handling, packing and transportation of briquettes can be made in any conventional length and diameter
- Low ash content below 10% in comparison to coal 25 to 40% resulting in less boiler ash disposal problems
- Regular supply of briquettes do not suffer from transportation bottle necks as the plant can be set up near raw areas
- There will be no corrosion effect on boiler equipment resulting in negligible maintenance cost. Coal on the other hand produces sulphur dioxide, which on mixing with moisture produces sulphuric acid an corrosive acid

- It has low ignition point, when compared to coal.
- It gives sustained combustion and more efficient combustion than loose agro wastes
- It is a clean fuel
- No gas and effluents like coal. So no health hazards
- Easy Handling compared to loose husk and fire wood. Can be mixed with coal and fire wood of inferior quality which improves burning
- Briquettes are Cheaper than coal

Briquettes are widely used for any Thermal application where coal can be utilize i.e. steam generation in boilers, heating purpose etc.

Briquettes can replace following conventional fuels that are used in mass quantities:

- Diesel
- Kerosene
- Furnace Oil
- Lignite
- Coal
- Firewood

Every year millions of tons of agricultural waste are generated. These are either none used or burnt inefficiently in their loose form causing air pollution. Handling and transportation of these materials is difficult due to their low bulk density. These wastes can provide a renewable source of energy by converting into high-density fuel briquettes without addition of any binder. The demand of energy is increasing day by day and the supplies of sources are limited. The renewable energy project is ideal for the agricultural based countries like India, Sri Lanka, Pakistan and African Countries as there are a huge availability of agro-forestry waste. And it is very good in industrial based countries.

It has been found that several alternative energy sources has come up, among them, utilization of agricultural residues, forest residues, municipal garbage into valuable solid fuel is one which is one of the modern and latest concept which has come up to meet the growing demand of fuel. Its demand will definitely rise with rapid industrialization in the coming future.

So a new entrepreneur can well venture into this field by fully assessing the fuel requirement by different small, medium and large-scale industries. The new prospective and decisive entrepreneurs can well venture by installing a unit of biocoal manufacturing to satisfy present and future demand.

Project at a Glance

Capacity	:	4800 MT/Annum
Plant & Machinery	:	28 Lakhs
Total Capital Investment	:	129 Lakhs
Rate of Return	:	46%
Break Even Point	:	38%

Niir Project Consultancy Services (NPCS)
can provide Detailed Project Report on
Bio Coal Briquettes
(From Agricultural Cellulosic Waste)

See more

<https://goo.gl/1lA4Gi>

<https://goo.gl/mrZWHR>



Major Queries/Questions Answered in the Report?

- 1. What is Bio Coal Briquettes industry ?**
- 2. How has the Bio Coal Briquettes industry performed so far and how will it perform in the coming years ?**
- 3. What is the Project Feasibility of a Bio Coal Briquettes Plant ?**
- 4. What are the requirements of Working Capital for setting up a Bio Coal Briquettes plant ?**

- 5. What is the structure of the Bio Coal Briquettes Business and who are the key/major players ?**
- 6. What is the total project cost for setting up Bio Coal Briquettes plant ?**
- 7. What are the operating costs for setting up a Bio Coal Briquettes plant ?**
- 8. What are the machinery and equipment requirements for setting up a Bio Coal Briquettes plant ?**

- 9. Who are the Suppliers and Manufacturers of Plant & Machinery for setting up a Bio Coal Briquettes plant ?**
- 10. What are the requirements of raw material for setting up a Bio Coal Briquettes plant ?**
- 11. Who are the Suppliers and Manufacturers of Raw materials for setting up a Bio Coal Briquettes plant ?**
- 12. What is the Manufacturing Process and Formulations of a Bio Coal Briquettes plant ?**

- 13. What is the total size of land required for setting up a Bio Coal Briquettes plant ?**
- 14. What will be the income and expenditures for a Bio Coal Briquettes plant ?**
- 15. What are the Projected Balance Sheets of a Bio Coal Briquettes plant ?**
- 16. What are the requirement of utilities and overheads for setting up a Bio Coal Briquettes plant?**
- 17. What is the Built up Area Requirement and cost for setting up a Bio Coal Briquettes Business?**

18. What are the Personnel (Manpower) Requirements for setting up a Bio Coal Briquettes Business?

19. What are Statistics of Import & Export for Bio Coal Briquettes ?

20. What is the time required to break-even?

21. What is the Break-Even Analysis of a Bio Coal Briquettes plant?

22. What are the Project financials of a Bio Coal Briquettes plant?

- 23. What are the Profitability Ratios of a Bio Coal Briquettes plant?**
- 24. What is the Sensitivity Analysis-Price/Volume of a Bio Coal Briquettes plant?**
- 25. What are the Projected Pay-Back Period and IRR of a Bio Coal Briquettes plant?**
- 26. What is the Process Flow Sheet Diagram of a Bio Coal Briquettes project?**

- 27. What are the Market Opportunities for setting up a Bio Coal Briquettes plant?**
- 28. What is the Market Study and Assessment for setting up a Bio Coal Briquettes plant?**
- 29. What is the Plant Layout for setting up a Bio Coal Briquettes Business?**

Table of Contents of the Project Report

1. PROJECT LOCATION

1.1. District Profile & Geotechnical Site Characterization

1.1.1. General

1.1.2. Physical Characteristics

1.1.3. Map

1.1.4. Culture & Languages

1.1.5. Climate & Rainfall

1.1.6. Transportation and Communications

1.1.7. Economy & Industry

2. INTRODUCTION

3. PROPERTIES OF BIOCOAL

- 4. USES AND APPLICATION**
- 5. B.I.S. SPECIFICATIONS**
- 6. MARKET SURVEY**
- 7. PROJECT BENEFITS**
- 8. RAW MATERIALS**
- 9. MANUFACTURING PROCESS**
- 10. PROCESS FLOW DIAGRAM**

- 11. SUPPLIERS OF PLANT & MACHINERY
- 12. SUPPLIERS OF RAW MATERIAL
- 13. BASIS FOR CALCULATION USING ONE MACHINE PLANT
- 14. DETAILS OF PLANT & MACHINERY
- 15. MACHINERY & PRODUCT PHOTOGRAPHS
 - 15.1. Machinery Photographs
 - 15.2. Product Photographs
- 16. PLANT LAYOUT

Project Financials

- **Project at a Glance** **Annexure**

- Assumptions for Profitability workings1

- Plant Economics.....2

- Production Schedule.....3

- Land & Building.....4

Factory Land & Building
Site Development Expenses

- Plant & Machinery.....5
 - Indigenous Machineries
 - Other Machineries (Miscellaneous, Laboratory etc.)
- Other Fixed Assets.....6
 - Furniture & Fixtures
 - Pre-operative and Preliminary Expenses
 - Technical Knowhow
 - Provision of Contingencies
- Working Capital Requirement Per Month.....7
 - Raw Material
 - Packing Material
 - Lab & ETP Chemical Cost
 - Consumable Store

- Overheads Required Per Month and Per Annum.....8
 - Utilities & Overheads (Power, Water and Fuel Expenses etc.)
 - Royalty and Other Charges
 - Selling and Distribution Expenses
- Salary and Wages9
- Turnover Per Annum10
- Share Capital.....11
 - Equity Capital
 - Preference Share Capital

- **Annexure 1 :: Cost of Project and Means of Finance**
- **Annexure 2 :: Profitability and Net Cash Accruals**
 - **Revenue/Income/Realisation**
 - **Expenses/Cost of Products/Services/Items**
 - **Gross Profit**
 - **Financial Charges**
 - **Total Cost of Sales**
 - **Net Profit After Taxes**
 - **Net Cash Accruals**

- **Annexure 3 :: Assessment of Working Capital requirements**

- **Current Assets**
- **Gross Working Capital**
- **Current Liabilities**
- **Net Working Capital**
- **Working Note for Calculation of Work-in-process**

- **Annexure 4 :: Sources and Disposition of Funds**

- **Annexure 5 :: Projected Balance Sheets**

- **ROI (Average of Fixed Assets)**
- **RONW (Average of Share Capital)**
- **ROI (Average of Total Assets)**

- **Annexure 6 :: Profitability Ratios**

- **D.S.C.R**
- **Earnings Per Share (EPS)**
- **Debt Equity Ratio**

- **Annexure 7 :: Break-Even Analysis**

- **Variable Cost & Expenses**
- **Semi-Variable/Semi-Fixed Expenses**
- **Profit Volume Ratio (PVR)**
- **Fixed Expenses / Cost**
- **B.E.P**

- **Annexure 8 to 11 :: Sensitivity Analysis-Price/Volume**

- **Resultant N.P.B.T**
- **Resultant D.S.C.R**
- **Resultant PV Ratio**
- **Resultant DER**
- **Resultant ROI**
- **Resultant BEP**

- **Annexure 12 :: Shareholding Pattern and Stake Status**

- **Equity Capital**
- **Preference Share Capital**

- **Annexure 13 :: Quantitative Details-Output/Sales/Stocks**

- **Determined Capacity P.A of Products/Services**
- **Achievable Efficiency/Yield % of Products/Services/Items**
- **Net Usable Load/Capacity of Products/Services/Items**
- **Expected Sales/ Revenue/ Income of Products/ Services/ Items**

- **Annexure 14** :: **Product wise Domestic Sales Realisation**
- **Annexure 15** :: **Total Raw Material Cost**
- **Annexure 16** :: **Raw Material Cost per unit**
- **Annexure 17** :: **Total Lab & ETP Chemical Cost**
- **Annexure 18** :: **Consumables, Store etc.**
- **Annexure 19** :: **Packing Material Cost**
- **Annexure 20** :: **Packing Material Cost Per Unit**

- **Annexure 21** :: **Employees Expenses**
 - **Annexure 22** :: **Fuel Expenses**
 - **Annexure 23** :: **Power/Electricity Expenses**
 - **Annexure 24** :: **Royalty & Other Charges**
 - **Annexure 25** :: **Repairs & Maintenance**
- Expenses**
- **Annexure 26** :: **Other Manufacturing Expenses**
 - **Annexure 27** :: **Administration Expenses**
 - **Annexure 28** :: **Selling Expenses**

- **Annexure 29 :: Depreciation Charges – as per Books (Total)**
- **Annexure 30 :: Depreciation Charges – as per Books (P & M)**
- **Annexure 31 :: Depreciation Charges - as per IT Act WDV (Total)**
- **Annexure 32 :: Depreciation Charges - as per IT Act WDV (P & M)**
- **Annexure 33 :: Interest and Repayment - Term Loans**
- **Annexure 34 :: Tax on Profits**
- **Annexure 35 :: Projected Pay-Back Period and IRR**

Reasons for buying our report:

- **This report helps you to identify a profitable project for investing or diversifying into by throwing light to crucial areas like industry size, market potential of the product and reasons for investing in the product**
- **This report provides vital information on the product like it's characteristics and segmentation**
- **This report helps you market and place the product correctly by identifying the target customer group of the product**

- **This report helps you understand the viability of the project by disclosing details like machinery required, project costs and snapshot of other project financials**
- **The report provides a glimpse of government regulations applicable on the industry**
- **The report provides forecasts of key parameters which helps to anticipate the industry performance and make sound business decisions**

Our Approach:

- Our research reports broadly cover Indian markets, present analysis, outlook and forecast for a period of five years.
- The market forecasts are developed on the basis of secondary research and are cross-validated through interactions with the industry players
- We use reliable sources of information and databases. And information from such sources is processed by us and included in the report

Scope of the Report

The report titled “Market Survey cum Detailed Techno Economic Feasibility Report on Bio Coal Briquettes” provides an insight into the Bio Coal Briquettes market in India with focus on uses and applications, Manufacturing Process, Process Flow Sheets, Plant Layout and Project Financials of Bio Coal Briquettes project. The report assesses the market sizing and growth of the Indian Bio Coal Briquettes Industry. While expanding a current business or while venturing into new business, entrepreneurs are often faced with the dilemma of zeroing in on a suitable product/line. And before diversifying/venturing into any product, they wish to study the following aspects of the identified product:

- **Good Present/Future Demand**
- **Export-Import Market Potential**
- **Raw Material & Manpower Availability**
- **Project Costs and Payback Period**

We at NPCS, through our reliable expertise in the project consultancy and market research field, have demystified the situation by putting forward the emerging business opportunity in the Bio Coal Briquettes sector in India along with its business prospects. Through this report we have identified Bio Coal Briquettes project as a lucrative investment avenue.

Niir Project Consultancy Services (NPCS)
can provide Detailed Project Report on
Bio Coal Briquettes
(From Agricultural Cellulosic Waste)

See more

<https://goo.gl/1lA4Gi>

<https://goo.gl/mrZWHR>



Visit us at

www.entrepreneurindia.co



**Take a look at
NIIR PROJECT CONSULTANCY SERVICES
on #Street View**

<https://goo.gl/VstWkd>

Locate us on Google Maps

<https://goo.gl/maps/BKkUtq9gevT2>

Contact us

Niir Project Consultancy Services

106-E, Kamla Nagar, Opp. Spark Mall,

New Delhi-110007, India.

Email: npcs.ei@gmail.com , info@entrepreneurindia.co

Tel: +91-11-23843955, 23845654, 23845886, 8800733955

Mobile: +91-9811043595

Fax: +91-11-23841561

Website : www.entrepreneurindia.co , www.niir.org

Take a look at NIIR PROJECT CONSULTANCY SERVICES on

#StreetView

<https://goo.gl/VstWkd>



Niir PROJECT CONSULTANCY SERVICES

An ISO 9001:2008 Company



Who are we?

- *One of the leading reliable names in industrial world for providing the most comprehensive technical consulting services*
- *We adopt a systematic approach to provide the strong fundamental support needed for the effective delivery of services to our Clients' in India & abroad*

We at NPCS want to grow with you by providing solutions scale to suit your new operations and help you reduce risk and give a high return on application investments. We have successfully achieved top-notch quality standards with a high level of customer appreciation resulting in long lasting relation and large amount of referral work through technological breakthrough and innovative concepts. A large number of our Indian, Overseas and NRI Clients have appreciated our expertise for excellence which speaks volumes about our commitment and dedication to every client's success.

We bring deep, functional expertise, but are known for our holistic perspective: we capture value across boundaries and between the silos of any organization. We have proven a multiplier effect from optimizing the sum of the parts, not just the individual pieces. We actively encourage a culture of innovation, which facilitates the development of new technologies and ensures a high quality product.

What do we offer?

- *Project Identification*
- *Detailed Project Reports/Pre-feasibility Reports*
- *Market Research Reports*
- *Business Plan*
- *Technology Books and Directory*
- *Industry Trend*
- *Databases on CD-ROM*
- *Laboratory Testing Services*
- *Turnkey Project Consultancy/Solutions*
- *Entrepreneur India (An Industrial Monthly Journal)*

How are we different ?

- *We have two decades long experience in project consultancy and market research field*
- *We empower our customers with the prerequisite know-how to take sound business decisions*
- *We help catalyze business growth by providing distinctive and profound market analysis*
- *We serve a wide array of customers , from individual entrepreneurs to Corporations and Foreign Investors*
- *We use authentic & reliable sources to ensure business precision*



Our Approach

Requirement collection

Thorough analysis of the project

Economic feasibility study of the Project

Market potential survey/research

Report Compilation

Who do we serve?

- *Public-sector Companies*
- *Corporates*
- *Government Undertakings*
- *Individual Entrepreneurs*
- *NRI's*
- *Foreign Investors*
- *Non-profit Organizations, NBFC's*
- *Educational Institutions*
- *Embassies & Consulates*
- *Consultancies*
- *Industry / trade associations*

Sectors We Cover

- *Ayurvedic And Herbal Medicines, Herbal Cosmetics*
- *Alcoholic And Non Alcoholic Beverages, Drinks*
- *Adhesives, Industrial Adhesive, Sealants, Glues, Gum & Resin*
- *Activated Carbon & Activated Charcoal*
- *Aluminium And Aluminium Extrusion Profiles & Sections,*
- *Bio-fertilizers And Biotechnology*
- *Breakfast Snacks And Cereal Food*
- *Bicycle Tyres & Tubes, Bicycle Parts, Bicycle Assembling*

- *Bamboo And Cane Based Projects*
- *Building Materials And Construction Projects*
- *Biodegradable & Bioplastic Based Projects*
- *Chemicals (Organic And Inorganic)*
- *Confectionery, Bakery/Baking And Other Food*
- *Cereal Processing*
- *Coconut And Coconut Based Products*
- *Cold Storage For Fruits & Vegetables*
- *Coal & Coal Byproduct*

- *Copper & Copper Based Projects*
- *Dairy/Milk Processing*
- *Disinfectants, Pesticides, Insecticides, Mosquito Repellents,*
- *Electrical, Electronic And Computer based Projects*
- *Essential Oils, Oils & Fats And Allied*
- *Engineering Goods*
- *Fibre Glass & Float Glass*
- *Fast Moving Consumer Goods*
- *Food, Bakery, Agro Processing*

- *Fruits & Vegetables Processing*
- *Ferro Alloys Based Projects*
- *Fertilizers & Biofertilizers*
- *Ginger & Ginger Based Projects*
- *Herbs And Medicinal Cultivation And Jatropha (Biofuel)*
- *Hotel & Hospitality Projects*
- *Hospital Based Projects*
- *Herbal Based Projects*
- *Inks, Stationery And Export Industries*

- *Infrastructure Projects*
- *Jute & Jute Based Products*
- *Leather And Leather Based Projects*
- *Leisure & Entertainment Based Projects*
- *Livestock Farming Of Birds & Animals*
- *Minerals And Minerals*
- *Maize Processing(Wet Milling) & Maize Based Projects*
- *Medical Plastics, Disposables Plastic Syringe, Blood Bags*
- *Organic Farming, Neem Products Etc.*

- *Paints, Pigments, Varnish & Lacquer*
- *Paper And Paper Board, Paper Recycling Projects*
- *Printing Inks*
- *Packaging Based Projects*
- *Perfumes, Cosmetics And Flavours*
- *Power Generation Based Projects & Renewable Energy Based Projects*
- *Pharmaceuticals And Drugs*
- *Plantations, Farming And Cultivations*
- *Plastic Film, Plastic Waste And Plastic Compounds*
- *Plastic, PVC, PET, HDPE, LDPE Etc.*

- *Potato And Potato Based Projects*
- *Printing And Packaging*
- *Real Estate, Leisure And Hospitality*
- *Rubber And Rubber Products*
- *Soaps And Detergents*
- *Stationary Products*
- *Spices And Snacks Food*
- *Steel & Steel Products*
- *Textile Auxiliary And Chemicals*

Sectors We Cover *Cont...*

- *Township & Residential Complex*
- *Textiles And Readymade Garments*
- *Waste Management & Recycling*
- *Wood & Wood Products*
- *Water Industry(Packaged Drinking Water & Mineral Water)*
- *Wire & Cable*

Contact us

Niir Project Consultancy Services

106-E, Kamla Nagar, Opp. Spark Mall,

New Delhi-110007, India.

Email: npcs.ei@gmail.com , info@entrepreneurindia.co

Tel: +91-11-23843955, 23845654, 23845886, 8800733955

Mobile: +91-9811043595

Fax: +91-11-23841561

Website : www.entrepreneurindia.co , www.niir.org

Take a look at NIIR PROJECT CONSULTANCY SERVICES on

#StreetView

<https://goo.gl/VstWkd>



Follow us



➤ <https://www.linkedin.com/company/niir-project-consultancy-services>



➤ <https://www.facebook.com/NIIR.ORG>



➤ <https://www.youtube.com/user/NIIRproject>



➤ <https://plus.google.com/+EntrepreneurIndiaNewDelhi>



➤ https://twitter.com/npcs_in



➤ <https://www.pinterest.com/npcsindia/>





For more information, visit us at:

www.niir.org

www.entrepreneurindia.co