



KOPERASI PRODUSEN ENERGI BIOMASSA INDONESIA INDONESIAN BIOMASS ENERGY PRODUCER COOPERATIVE



kebi.co.id



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Syafei No.19, Bukit Duri, Tebet, Jakarta Selatan 12840

Nomor Induk Koperasi (NIK) : 3171090050035

**COMPANY PROFILE
2026**



KEBI FOR RENEWABLE ENERGY SECURITY AND NATIONAL CIRCULAR ECONOMY

Indonesian Biomass Energy Producers Cooperative was formed. KEBI was established on January 21st, 2021. KEBI is a corporation which is purely business oriented in industry, trade, and services biomass energy sectors in Indonesia.

KEBI's activities are producing biomass; **Wood-pellet, Woodchip, Bio-pellet** (EFB, Bagasse, Corncob, Rice husk), Charcoal from Rice husk, Coconut, Wood, and selling biomass to local industries and export to South Korea, Japan, and Middle East Countries.

In biomass energy services, KEBI's focus on Biomass **Manufacturing Consultant**, Refuse Derived Fuel (RDF), Solid Recovered Fuel (SRF), **WTE Power Plant** from Municipal Solid Waste (MSW).



Nomor : B- 03 /D.4.4/PK.02.00/2025
Sifat : Segera
Lampiran : -
Perihal : Undangan Rapat

Yth : Bapak/Ibu (bersama)
di -
Tempat

Dalam rangka membahas pemetaan proses bisnis program energi biomassa oleh koperasi, maka kami bermaksud mengundang Bapak/Ibu untuk hadir pada rapat yang akan dilaksanakan pada :

Hari / Tanggal : Senin, 13 Januari 2025
Waktu : 10.00 WIB s.d selesai
Tempat : Ruang Rapat Lantai 4 Kementerian Koperasi dan UKM RI
Jl. H.R. Rasuna Said Kav 3-4, Kuningan, Setiabudi, Jakarta Selatan, DKI Jakarta
Agenda : Pemetaan proses bisnis energi biomassa
Pimpinan Rapat : Deputi Bidang Pengawasan Koperasi

Mengingat pentingnya acara dimaksud, kami mengharapkan kehadiran Bapak/Ibu tepat waktu.

Demikian kami sampaikan, atas perhatian dan kerjasamanya diucapkan terima kasih.

Asisten Deputi Pemerkoran

Mohamad Hidayat
NIP. 19710417 198403 1 001

Tembusan :
Arsip.

KEBI was appointed by the Indonesian Ministry of Cooperatives (Kemenkop) to conduct business process mapping of biomass energy programs by cooperatives.

Vision

KEBI is the leading cooperative in the development of biomass energy to support energy security and national economy sustainably.

Mission

- Encouraging the use of biomass in bio-economic development that is oriented domestic and export markets for economic growth and social welfare.
- Encouraging optimization of increased value added and competitiveness and increased accessibility of biomass energy in affordable prices for society.
- Helping to create job vacancy and business through the utilization of biomass for energy and advanced materials, and utilization economic resources of its members either individually or in collaboration with other parties.

Purpose

- Cooperative aims to improve member's welfare in particular and society in general, at the same time as an inseparable part of a national economic order that is democratic and equitable.
- In achieving the purpose that has been appointed, cooperative arrange the strategic plan.



ORGANIZATION STRUCTURE







BIOMASS PRODUCTS

Wood Pellets
HS: 44013100



Woodchips
HS: 44012100



CornCob Pellets
HS: 23080000



EFB Pellets
HS: 08109090



REPORT OF ANALYSIS

ANALYST: [Name]
DATE: [Date]
CLIENT: [Name]

TESTS PERFORMED:

TEST	UNIT	RESULT	REFERENCE
Moisture	%	10.5	ASTM D 1505
Protein	%	18.2	AOAC 981.10
Fiber	%	45.8	AOAC 981.10
Cellulose	%	35.2	AOAC 981.10
Lignin	%	1.5	AOAC 981.10
Starch	%	0.5	AOAC 981.10
Oil	%	0.2	AOAC 981.10
Phosphorus	%	0.1	AOAC 981.10
Potassium	%	0.3	AOAC 981.10
Sulfur	%	0.1	AOAC 981.10
Calcium	%	0.1	AOAC 981.10
Magnesium	%	0.1	AOAC 981.10
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CHARCOAL PRODUCTS

Briquette Shape : HS Code : 44029010



Cube



Log



Lump (coconut shell)



Round tablet



Hexagonal



Button



Pillow



Rice Husk Charcoal

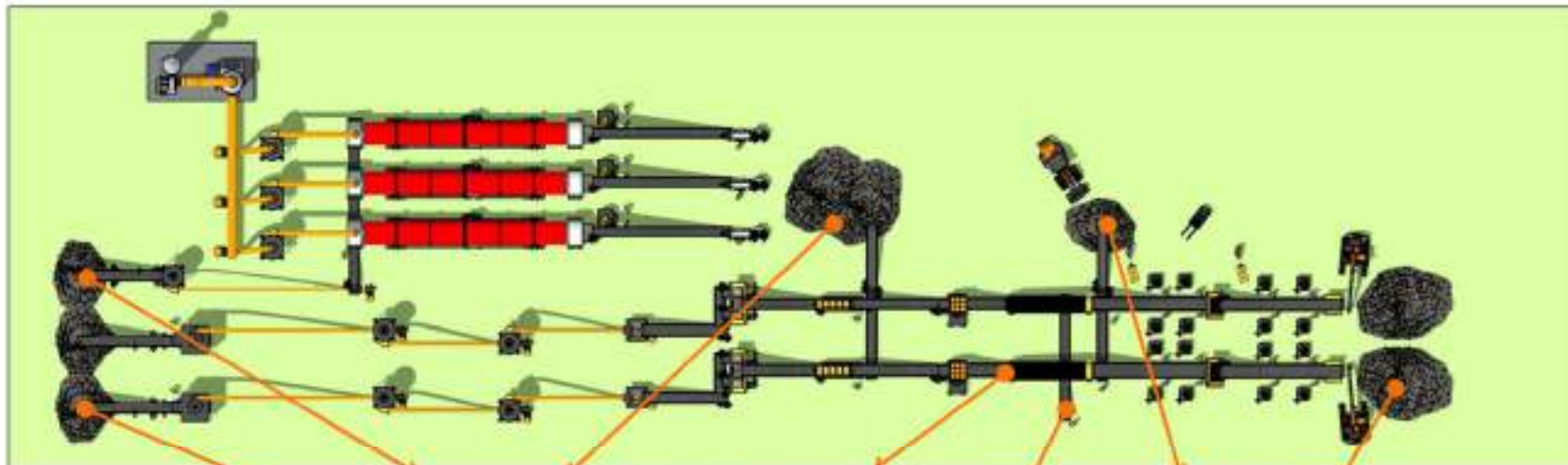
8



Rice Husk Charcoal



RDF-Based Integrated Waste Processing System



RDF Anorganik



Output Cyclone dryer



RDF organik



buffer rotary drying



anorganik



small partikel



3-6cm



Mix waste

Video sistem



RDF - SRF PRODUCTS

Briquette



- Moisture content maks. 15%
- Gross heating value (AR) min. 4100 Kcal/Kg
- Ash content maks. 20%
- Sulfur maks. 0,1%
- Chlor maks. 0,6%
- Size 4*3,5*3,5 cm

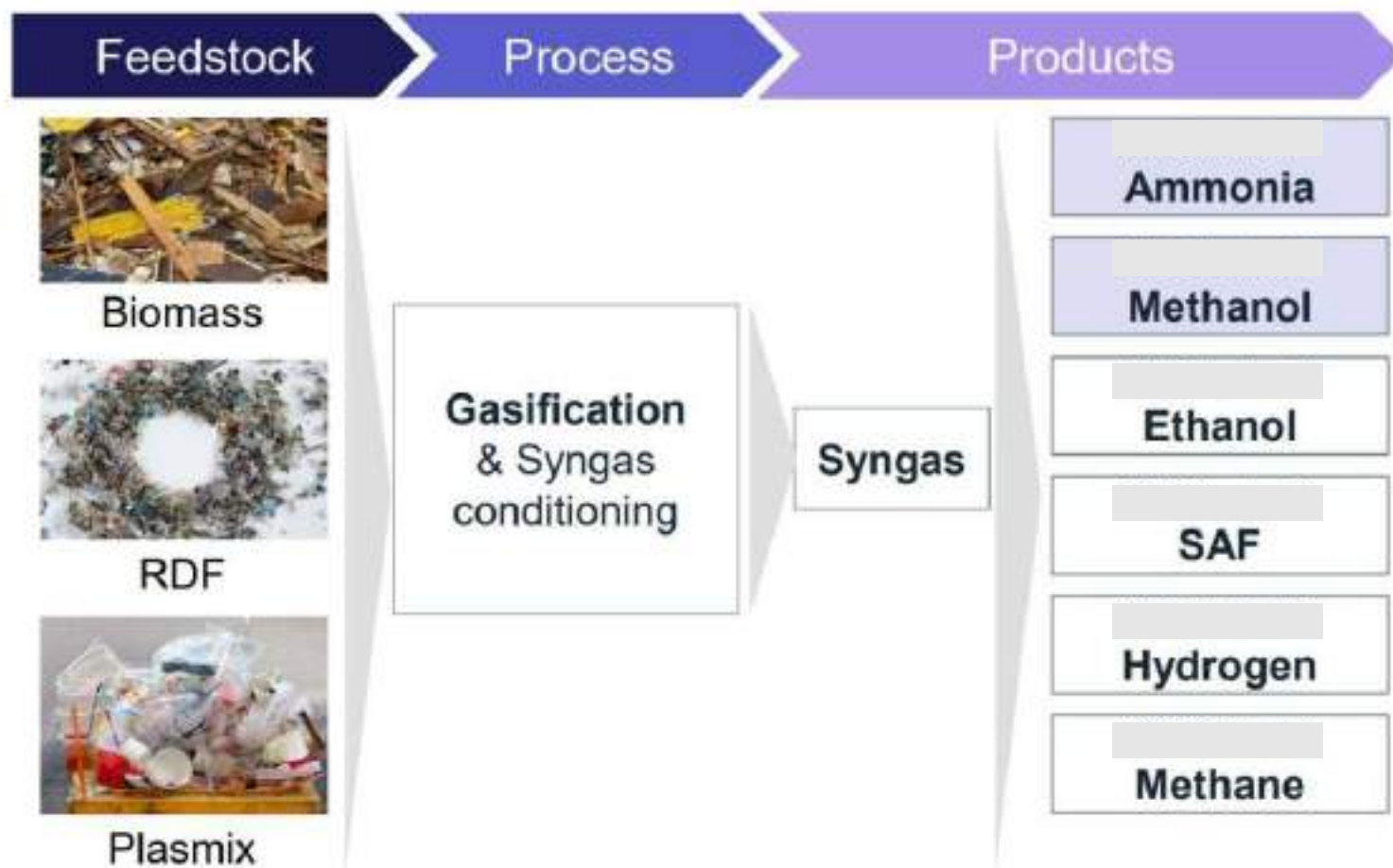
Fluff



		RDF
NCV	kcal/kg	3.000 - 3300
H2O/moisture	%	Max. 25
Ash	% ₀	15 - 20
Chlorine	%	0.2 - 0.4
Sulfur	%	< 0.2



Gasification Bridges Waste Management To Flexible Fuels & Chemical Production





Biomass Manufacturing Consultant





Biomass Manufacturing Consultant



Tanggal : 20 Februari 2025
Nomor : AML-LTR-II-2025-002
Kepada : Koperasi Produsen Energi Biomassa Indonesia
Dari : PT Agri Multi Lestari
Perihal : Pengumuman Evaluasi Tender Jasa Konsultan Desain dan Perencana Wood Chip Plant

Dengan hormat,

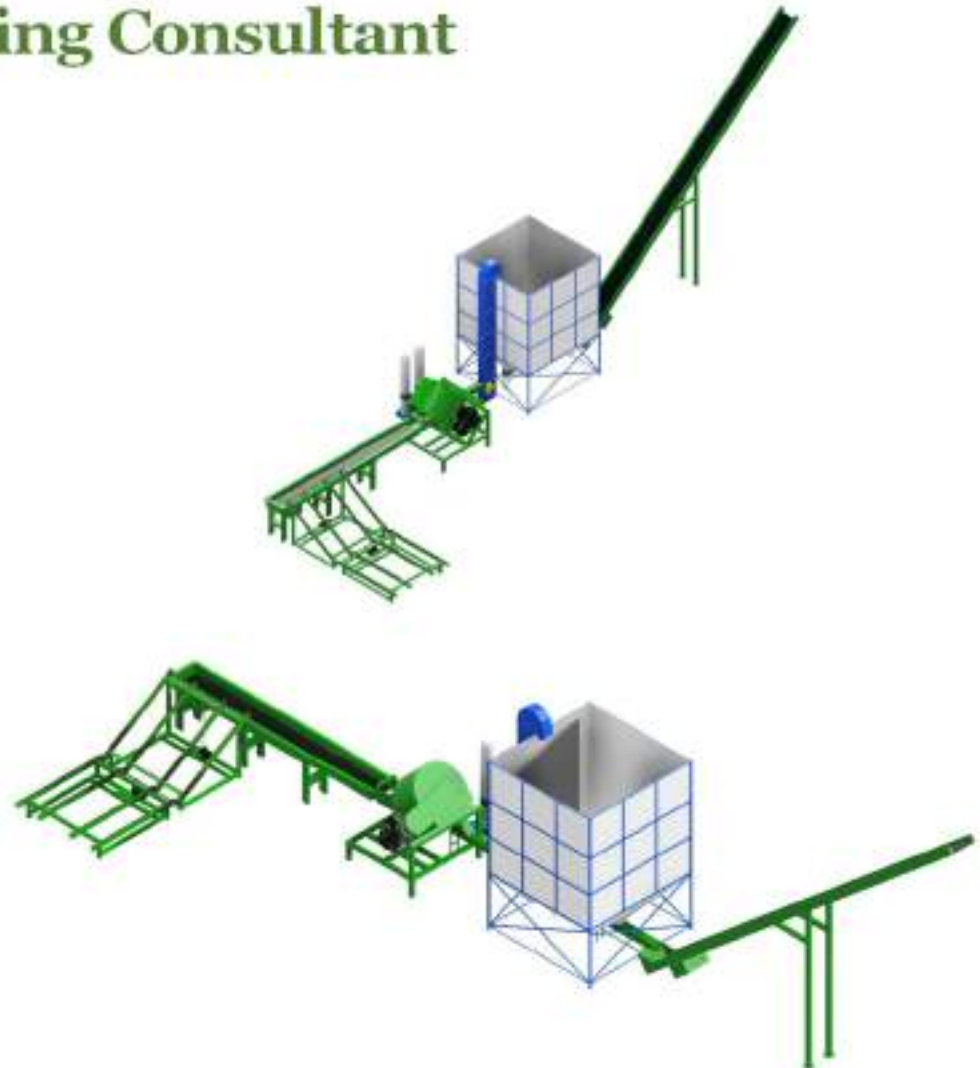
Berdasarkan hasil peninjauan untuk proposal dan penawaran atas Tender/Seleksi Terbatas Jasa Konsultan Desain dan Perencana Wood Chip Plant dengan nomor tender: AML-TDR-IX-2024-005, bersama ini kami informasikan bahwa Koperasi Produsen Energi Biomassa Indonesia **berhasil lolos** atas Tender yang telah dilakukan.

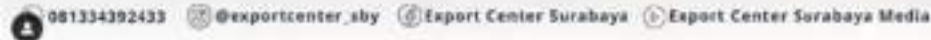
Surat ini merupakan surat pengumuman atas pemenang seleksi terbatas dan penjelasan mengenai proses kerjasama akan diatur lebih lanjut dalam bentuk perjanjian.

Demikian surat ini disampaikan untuk dapat dipergunakan sebaik-baiknya. Terima kasih atas partisipasi dan kerjasamanya selama proses seleksi berlangsung.

Hormat kami,
PT Agri Multi Lestari

Nela
Procurement Dept. Head



[illegible]

Utilization of Biomass



Palm Frond



Mesocarp



Rice Husk Charcoal



Empty Fruit Bunch



Oil Palm Trunk

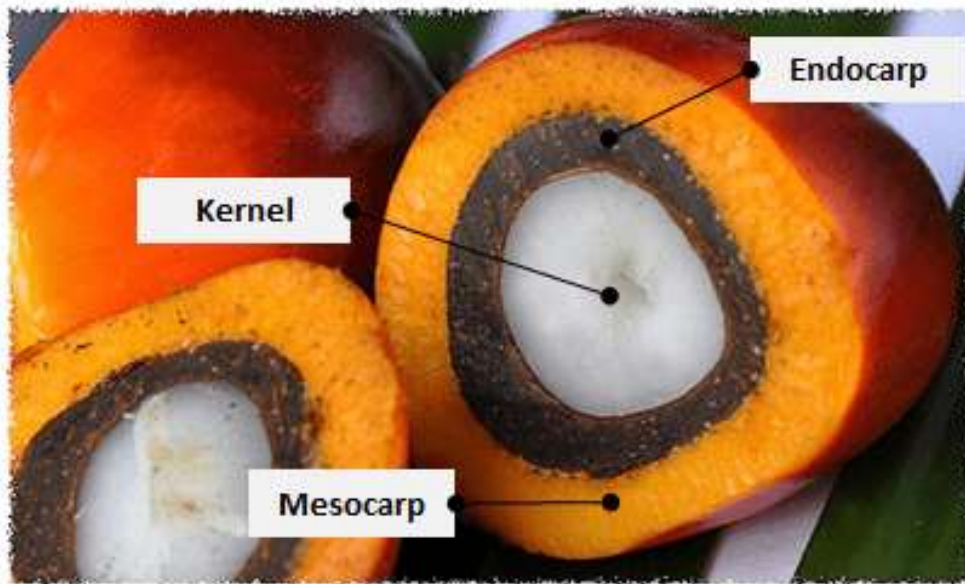


Bagasse

Palm Frond



Mesocarp Fiber



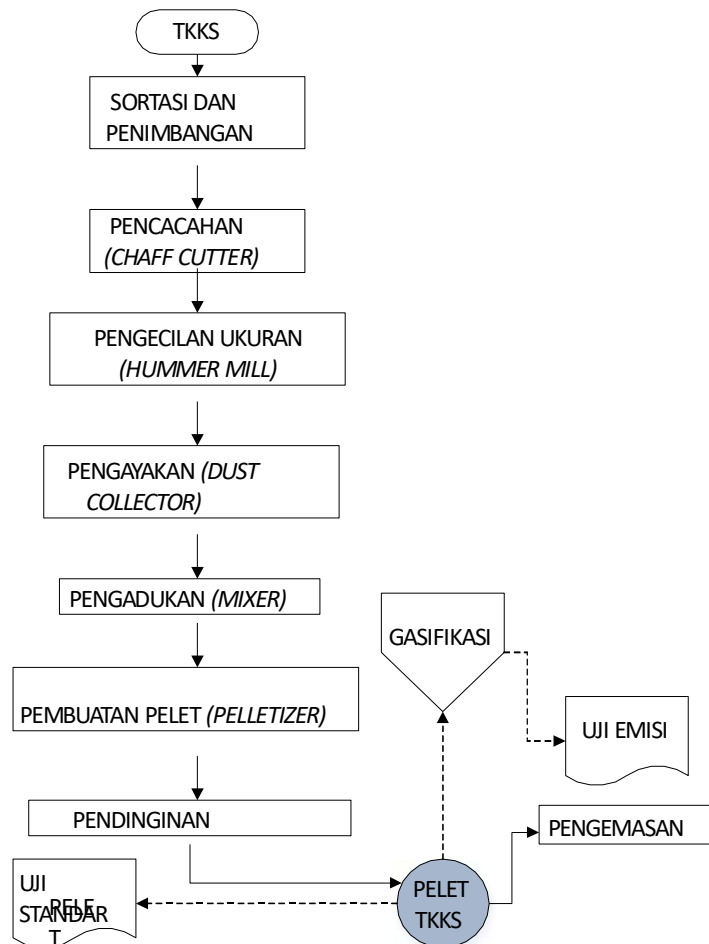
Empty Fruit Bunch



Oil Palm Trunk



Flow Chart Pellet Biomass EFB



Gambar 1. Alur proses pembuatan pelet biomassa TKKS

Parameter	TKKS
Kadar air (%)	44,60
Zat terbang (%)	53,44
Kadar abu (%)	5,02
Karbon terikat (%)	9,94
Nilai kalor (kal/g)	2460

Source : Warta IHP/Journal of Agro-based Industry Vol.35 (No.1) 07 2018: 1-11

PALM WASTE PELLETS PROCESSING



Raw materials



Press Machine



Feeder to HM



Hammer Mill



Palm Fiber



Feeder to Dryer



Dryer



Dry Palm Fiber size <5mm 10-12%



Feeder to Pellet Mill



Pellet Mill Machine



Cooler Machine



Bagging Machine



Finish Good Pellets Packing

Palm Frond Pellets



MESOCARP PELLETS



Empty Fruit Bunch PELLETS



Carbonizing - Pyrolysis System



Rice Husk Charcoal



1. **Abstract** of the document, which includes the following information:
 2. **Keywords** (3-5 words) that describe the main topics of the document.
 3. **Summary** (100-150 words) that provides a brief overview of the document's content.

Sawdust Briquette Charcoal





BESTON (HENAN) MACHINERY CO., LTD.

TEL: 0086-371-55181866

Web: www.bestongroup.com

9 FLOOR, 6 BUILDING, E-COMMERCIAL PORT OF CENTER CHINA, ERQI DISTRICT, ZHENGZHOU, CHINA

Analysis of EFB charcoal

Moisture	Bound water	Ash	Volatile	Fixed Carbon	Sulphur	Max heat value	Min heat value
10.13%	0.32%	9.73	24.91	65.04	0.06	6654 cal/kg	5775 cal/kg



SNI Pellet Biomassa VS Report Of Analysis

SNI 8675:2018

Tabel 1 – Spesifikasi standar pelet biomassa

No	Parameter uji	Satuan, min/maks	Persyaratan ^{a)}		Metode uji
			Rumah Tangga	Industri	
1	Densitas (kerapatan)	g/cm ³ , min	0,6	0,8	SNI 8021
2	Kadar abu	%, maks	5	5	ASTM E1755
3	Kadar air	%, maks	10	12	SNI 01-1506
4	Volatil matter	%, maks	75	80	SNI 06-3730
5	Kadar Karbon tetap	%, min	14	14	SNI 06-3730
6	Nilai kalor netto	MJ/kg, min	16,5	16,5	SNI 01-8235
7	Kadar chlor	%, maks	?	0,1	ASTM D3882
8	Kadar Kalium (sebagai K ₂ O)	%, maks ^{b)}	?	20	ASTM D6349
9	Kadar Natrium (sebagai Na ₂ O)	%, maks ^{b)}	?	5	ASTM D6349
10	Kadar Sulfur	%, maks	0,1	0,1	ASTM D1757

^{a)} tidak berlaku untuk keperluan rumah tangga
^{b)} persentase maksimal dari abu

Note : 16,5 MJ/kg = 3.943,59 Kcal/kg

				Pelet EFB
Total Moisture	😊	%	ar	9,31
Moisture in Sample	😊	%	adb	6,09
Ash Content	😊	%	adb	4,95
Volatile Matter	😊	%	adb	74,62
Fixed Carbon	😊	%	adb	14,34
Total Sulphur	😊	%	adb	0,13
Gross Calorific Value	😊	kcal/kg	adb	4287
Gross Calorific Value	😊	kcal/kg	ar	4140
Gross Calorific Value	😊	kcal/kg	db	4565
Hardgrove Grindability Index		index		22
Total Chlorine	😊	ppm		125
Ultimate Analysis				
Carbon		%	adb	44,75
Hydrogen		%	adb	5,60
Nitrogen		%	adb	0,56
Oxygen		%	adb	37,92
Ash Fusion Temperature (Reducing)				
Deformation		deg C	atm	1080
Spherical		deg C	atm	1120
Hemisphere		deg C	atm	1150
Flow		deg C	atm	1200

SNI Pellet Biomassa VS Report Of Analysis

SNI 8961:2020

3.13

utilitas

karakteristik pellet biomassa dengan kualitas minimal (nilai kalor minimal dan kadar unsur reaktif terhadap boiler nendak)

4 Persyaratan mutu dan metode uji

Syarat mutu pellet biomassa dan metode uji untuk pembangkit sesuai tabel 1 berikut ini:

Tabel 1 – Spesifikasi standar pellet biomassa untuk pembangkit listrik

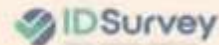
No	Parameter Uji	Satuan, min/maks	Kualitas			Metode Uji
			Premium	Standar	Utilitas	
1	Densitas (kepadatan)	g/cm ³ , min	0,5	0,5	0,5	SNI 8021
2	Kadar abu ⁽¹⁾	% berat, maks	1,5	3	4	SNI 06-3730
3	Kadar air ⁽²⁾	% berat, maks	5,5	10	12	SNI 01-1506
4	Kadar zat mudah menguap ⁽³⁾	% , maks	72	71	70	SNI 06-3730
5	Kadar karbon tetap ⁽⁴⁾	%, min	17	16	14	SNI 06-3730
6	Nilai kalor netto ⁽⁵⁾	kcal/kg, min	4.300	4.300	4.040	SNI 01-6235
7	Kadar Klorin ⁽⁶⁾	%, maks	0,02	0,03	0,05	lihat E.1
8	Kadar Kalium (sebagai K ₂ O)	%, maks ⁽⁷⁾	5	10	20	lihat E.2
9	Kadar Natrium (sebagai Na ₂ O)	%, maks ⁽⁷⁾	2,5	2,5	5	lihat E.2
10	Kadar Sulfur Total ⁽⁸⁾	%, maks	0,05	0,05	0,1	lihat E.3
11	Hardgrove Grindability Index	HGI, min	32	32	32	lihat E.4
12	Ash Fusion Temperature: IDT (at Reducing Atmosphere)	°C, min	1.200	1.180	1.150	lihat E.5

Keterangan:

⁽¹⁾ : as received

⁽²⁾ : Kadar Moisture/buffer total dalam kondisi dry basis

⁽³⁾ : Persen dari abu



Attachment

To Report No. 02858/BOEBAR

Date: March 4, 2024

Page 1 of 1



Issuing Office:

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Phone/Fax: +62 561 - 73334/0561 - 736319

Email: pontianak@eutofindo.co.id

REPORT OF ANALYSIS

PARAMETERS	UNITS	AR	ADB	DB	METHODS
Total Moisture	%	13.04	-	-	ASTM D 3302/3302 M-19
Proximate					
Moisture in Analysis	%	-	8.16	-	ASTM D 7582-15
Ash Content	%	4.13	4.36	4.75	
Volatile Matter	%	67.74	71.54	77.90	
Fixed Carbon	%	15.09	15.94	17.36	
Total Sulfur	%	0.25	0.26	0.28	ASTM D 4239-18e1 (A)
Gross Calorific Value	Kcal/Kg	4293	4534	4937	ASTM D 5865-19
Carbon	%	42.04	44.40	48.34	ASTM D D5373-21
Hydrogen ⁽¹⁾	%	5.40	5.70	6.21	
Nitrogen	%	0.53	0.56	0.61	
Oxygen ⁽¹⁾	%	34.62	36.56	39.61	ASTM D 3176-15
Ash Analysis					
Silicon Dioxide (SiO ₂)	%		51.98		ASTM D 6349-21
Aluminium Oxide (Al ₂ O ₃)	%		2.80		
Iron Oxide (Fe ₂ O ₃)	%		4.37		
Calcium Oxide (CaO)	%		6.48		
Magnesium Oxide (MgO)	%		3.16		
Sodium Oxide (Na ₂ O)	%		0.16		
Potassium Oxide (K ₂ O)	%		25.17		
Titanium Dioxide (TiO ₂)	%		0.20		
Mangan Dioxide (MnO ₂)	%		0.17		
Ash Fusion Temperature	T	REDUKSI	OKSIDASI		
ID	°C	950	966		ASTM D 1857-1857M-18
S	°C	1009	1025		
H	°C	1068	1088		
F	°C	1100	1121		

1. Hat Exclude H in Moisture (TM)

Note : 16,5 MJ/kg = 3.943,59 Kcal/kg

Exhaust Gas Emission Test Result - EFB Pellets



Hasil uji emisi gas buang pelet biomassa TKKS saat gasifikasi

Waktu	CO (%)	HC (ppm)	CO2 (%)	O2 (%)	
t1 (awal)	0	6,5	2.07	18.2	😊
t2	0.01	0	4.82	15.6	😊
t3	0	0	4.77	15.18	😊
t4	0.4	0	1.06	19.21	😊
t5	0.18	0	1.10	19.15	😊
t6	0.27	0	0.44	19.07	😊
t7	0.29	0	0.42	20.08	😊
t8 (selesai)	0.15	0	0.35	20.21	😊
Standard gas limit*)	4.5	1200	20	-	

*) Keputusan Menteri Lingkungan Hidup No. KEP-13/MENLH3/1995, tanggal 7 Maret 1995 tentang baku mutu emisi sumber tidak bergerak.

Partnership Interest

1. Off-Take Agreement
2. Joint Venture
3. Contract Manufacturing
4. Technology & Equipment Lease

Consulting Services

1. Biomass Manufacturing
2. SFM Certification Assistance
3. COC Certification Assistance
4. UKL-UPL Assistance
5. LCA Assistance
6. GHG Assistance
7. KLHS Assistance
8. SMETA Assistance
9. BRCGS Assistance
10. Green Gold Label (GGL) Assistance



We source Raw Materials
From The Whole Archipelago of
Indonesia

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