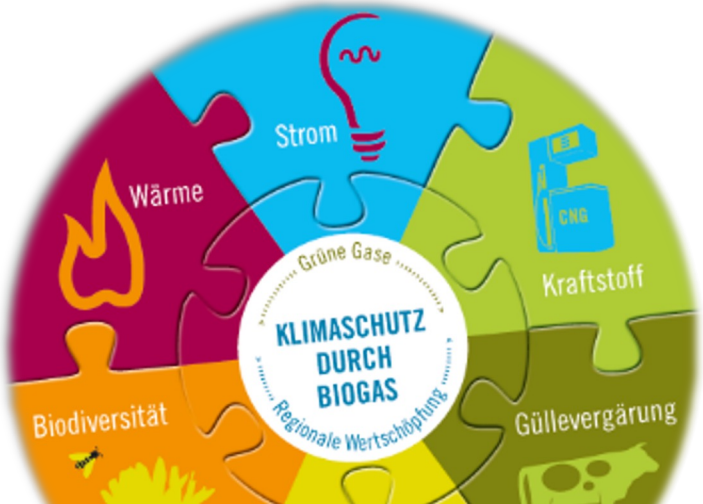
5 May 2023

Fachverband BIOGAS

Basics of Sustainability Policies for UABIO



Christoph Tollmann

Sustainability Advisor, Fachverband Biogas e.V.

Content

1. German Biogas Association (Fachverband Biogas)
2. Implementation of Renewable Energy Directive (RED II)
3. Planned Tighteninig: Renewable Energy Directive (RED III)
4. Fuel Emissions Trading Act (BEHG)

Fachverband Biogas e.V. - The German Biogas Association

- Operators of biogas plants
- Technology manufacturers
- Research institutions
- Public authorities
- Feedstock providers
- Interested individuals

Main objective: promotion of the biogas sector

- Definition of legal framework and technical standards
- Exchange of information
- Political advocacy at regional, national and European level

4700 members throughout Germany

40 employees dedicated to the topic

Member of

EBA European Biogas Association

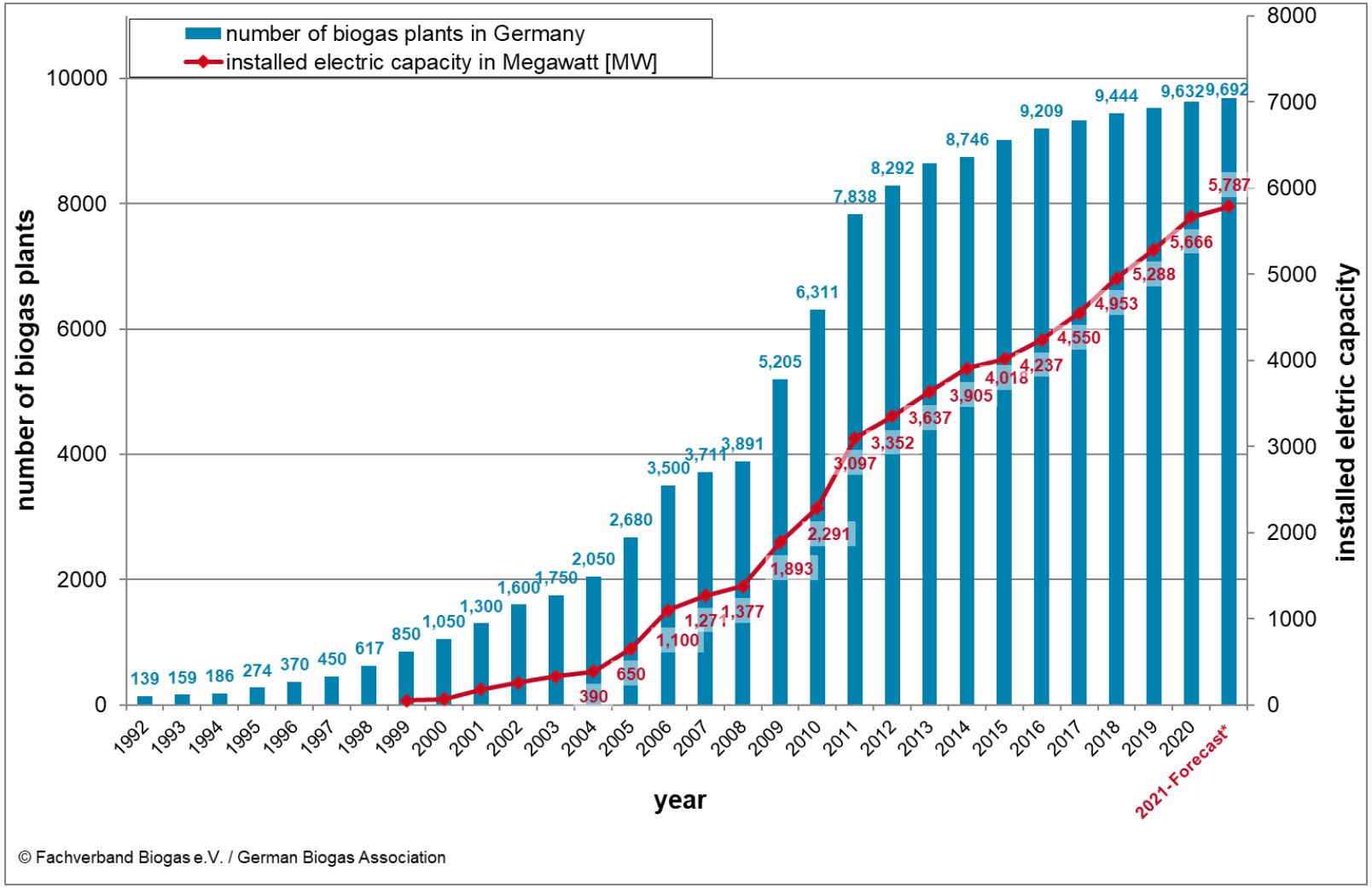
WORLD BIOENERGY ASSOCIATION

Fachverband Biogas e.V. - The German Biogas Association

Fachverband BIOGAS

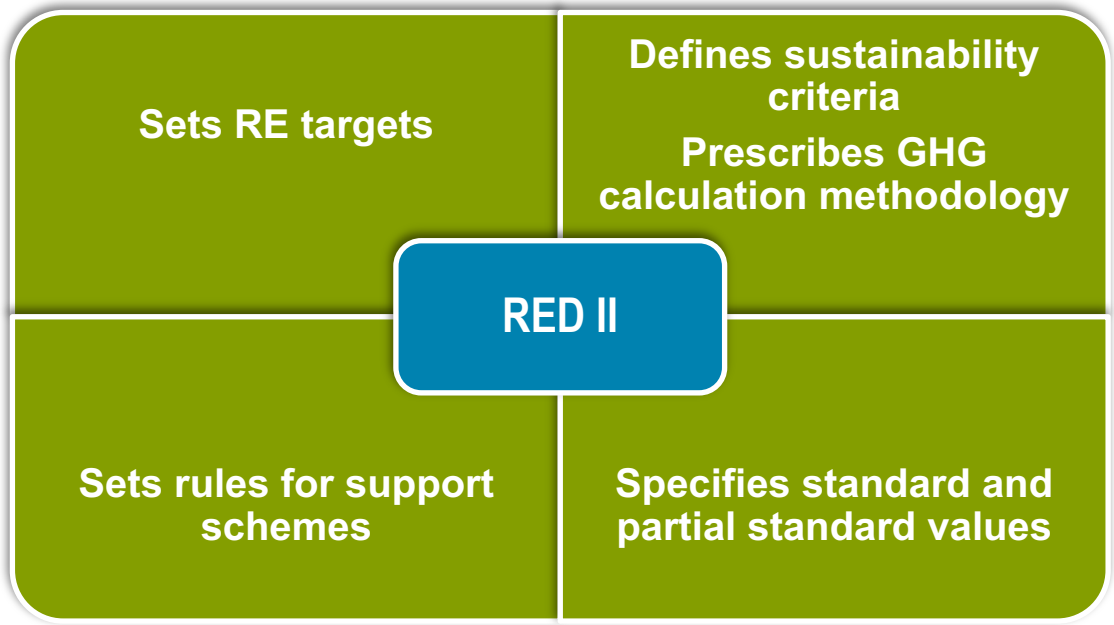
- **Technical departments**
  - Waste, fertilizer and hygiene
  - Agriculture
  - Manufacturers and technology
  - Permitting procedures
  - Training and safety
- **Functional departments**
  - Policy
  - Energy law and energy trade
  - Public relations
  - International affairs
- **Internal departments**
  - Member services
  - Event management
  - Administration

Development of the German Biogas Sector



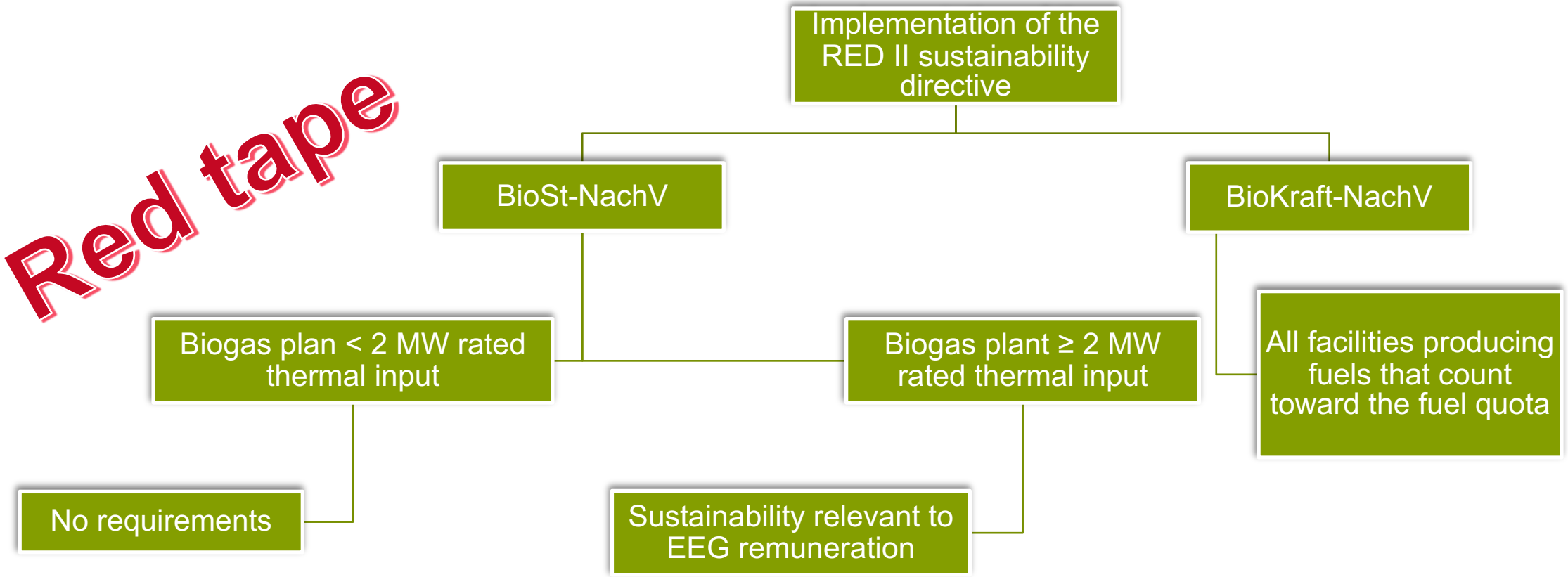
What is RED II and What Does it Regulate?

- The Renewable Energy Directive (2009/28/EC) (RED I) forms the legal framework for the EU's renewable energy policy since 2009.
- RED I was revised comprehensively by Directive (EU) 2018/2001 RED II
- RED II had to be implemented into national legislation by June 30, 2021. RED I expired as of July 1, 2021. Objectives:
  - Overall EU target: 32% contribution of RE by 2030.
  - Biomass energy qualifies for the 32% target only the sustainability criteria are met. With RED II, now also applies to electricity, heating and cooling.
  - Exemptions: Plants below 2 MW rated thermal for biogas or below 20 MW rated thermal biomass.



RED II – Scope of Application

- German government implements RED II requirements almost to the letter
- Implementation of sustainability requirements by 2 regulations (**BioSt-NachV**/*Biomass Energy Sustainability Regulation* and Biokraft-NachV/*Biofuels Sustainability Regulation*)



Sustainability – a Key Factor for the Economic Viability of Biogas/Biomethane

Fachverband BIOGAS

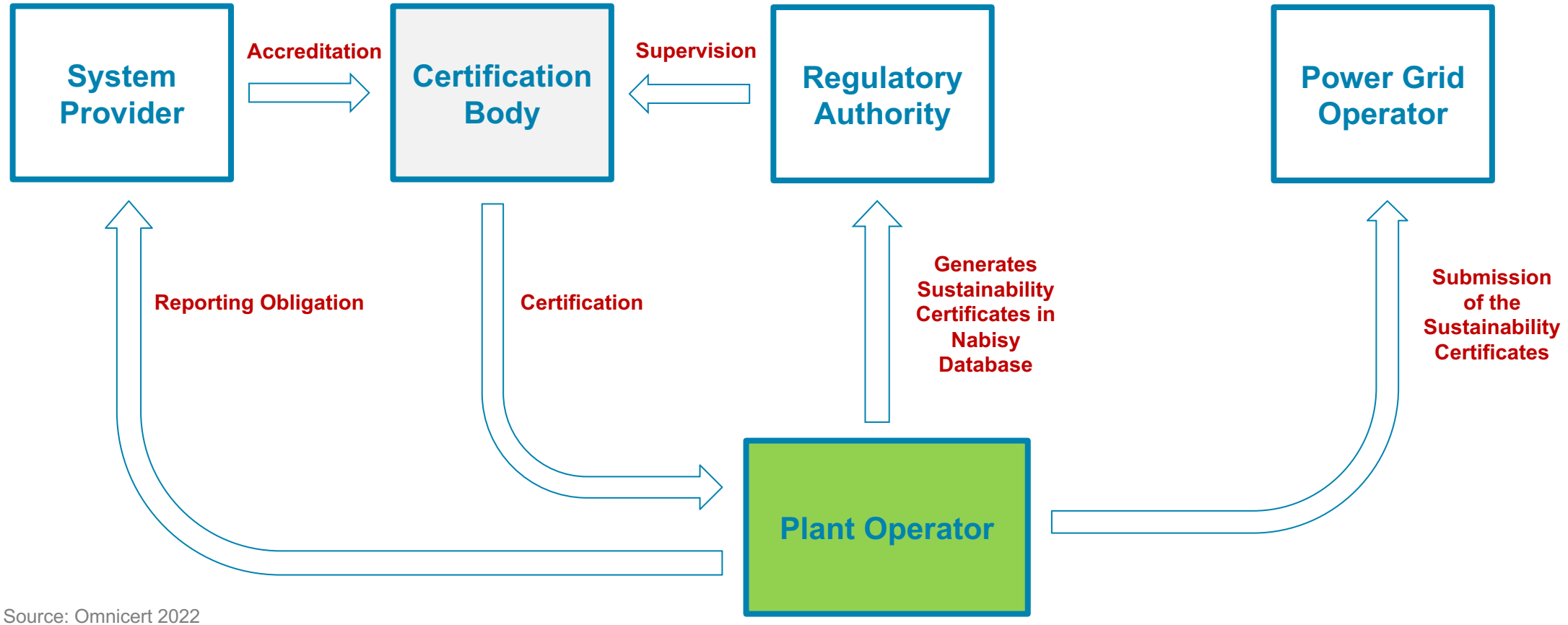
- EEG remuneration or crediting to fuel quota only if requirements according to §4 - §6 are met.
- §4 Agricultural biomass requirements
  - Biomass must not come from the following areas: High biodiversity areas (forests, nature reserves, grasslands); High carbon stock areas (wetlands, forests); peat lands.
  - For biomass from waste and agricultural residues (e.g., straw), compliance with monitoring and management plans must be demonstrated to avoid degradation of soil quality and carbon stocks
- §5 Forestry biomass requirements
- §6 GHG Mitigation

Commissioning	Traffic	Power, Heat, Cooling
before 05.10.2015	≥ 50%	
06.10.2015 – 31.12.2020	≥ 60%	
from 01.01.2021	≥ 65%	
01.01.2021 – 31.12.2025	-	≥ 70%
from 01.01.2026		≥ 80%

Relevance for the Industry

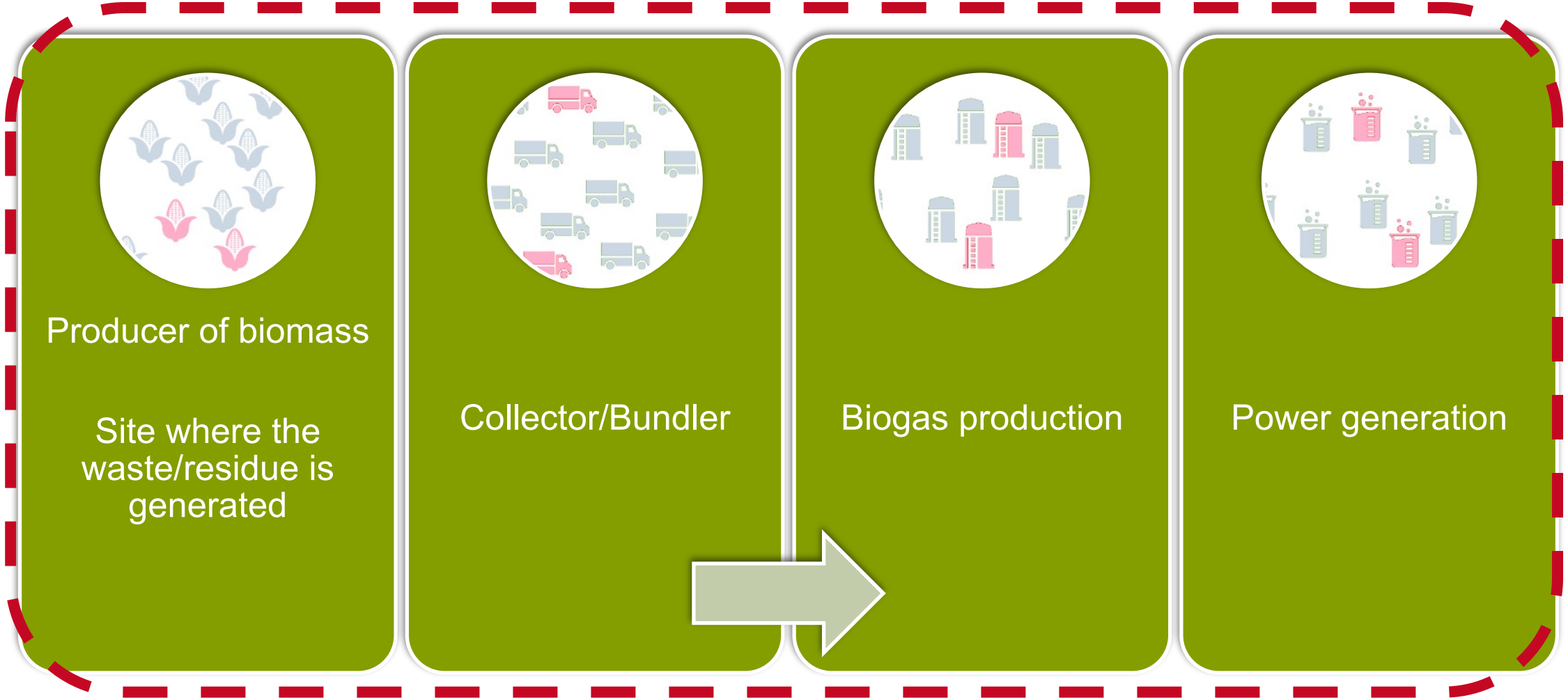
- All "**fuel facilities**" require sustainability certification (some incl. proof of GHG performance)
- There are two different cases for **"EEG" plants**
  - **For new plants (commissioned as of 1.1.2021) ≥ 2 MW rated thermal input, this means certification incl. GHG balance sheet**
  - **For existing plants (IBN before 1.1.2021) ≥ 2 MW rated thermal input this means certification without GHG balance sheet**
- Verification
  - Verification is carried out via approved certification systems and by approved auditors
  - Submission of sustainability certificates via Nabisy (BLE database) to the network operator or biofuel quota office
- Requirements for the sustainability certificates
  - Adoption of a mass balance system
  - Certification of the plant and the supply chain

Stakeholders in the Certification Process

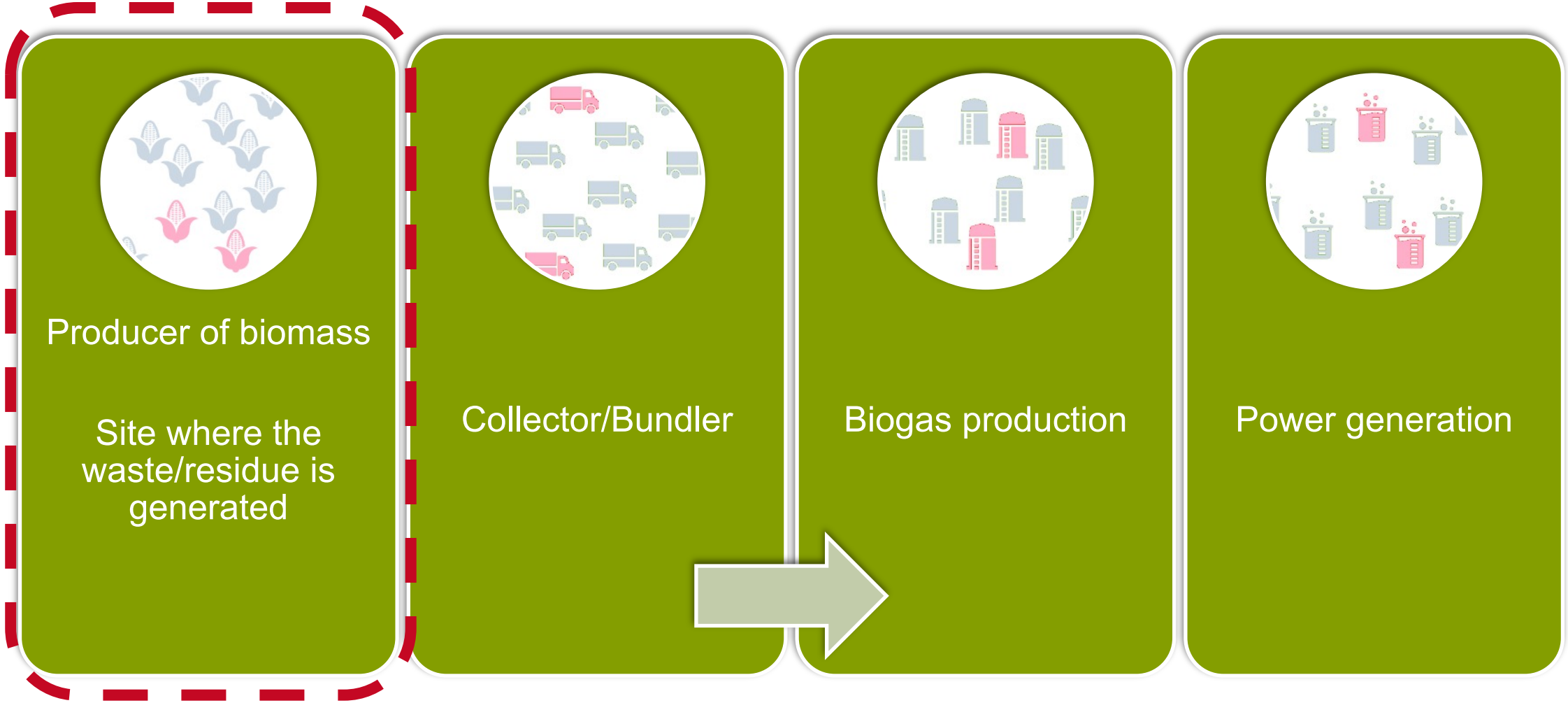


Source: Omnicert 2022

Who in the Supply Chain Needs to be Certified?



Who in the Supply Chain may Issue Self-Declarations?



How to Obtain a Certificate

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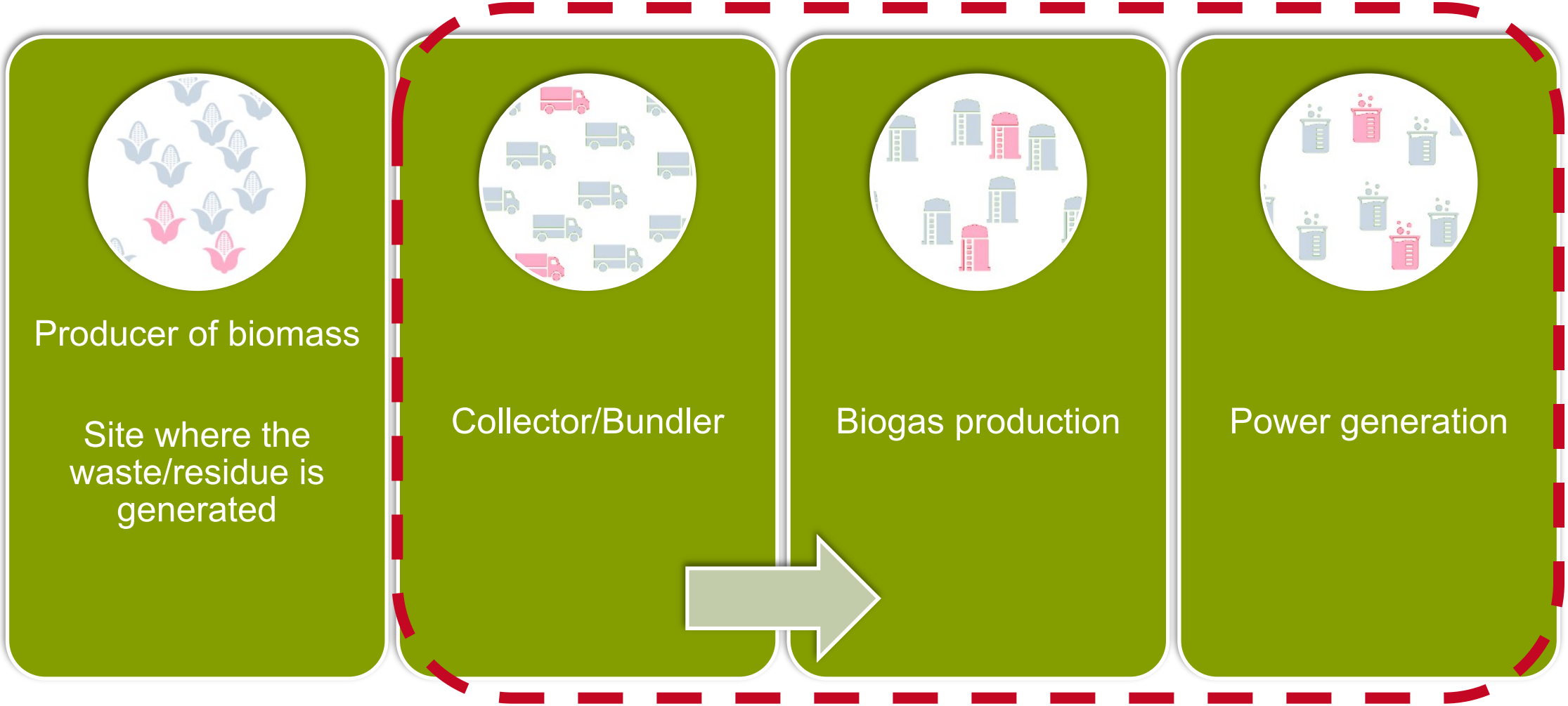
Preparation for audit → Registration with certification system → Contract with certification body → Initial audit → Follow-up audit → Monitoring audit → Validity 12 months → Re-certification → …

Who in the supply chain must maintain a mass balance?



What is a Mass Balance System?

- Central component of sustainability certification: Quantitative accounting system to trace all stages of biomass production and delivery to the final interface.
- Obligatory for RED II plants since January 1, 2022.
- It must be possible to trace the quantity of sustainable biomass at each step of the supply chain.
- For biogas plants, the mass balance covers:
  - Registration of the incoming substrates
  - Feeding into the fermenter with subsequent fermentation
  - Production of the final product (biomethane, electricity, heat)

Übertrag Lager 2021

		Einlagerung					
Lager_Nummer	1	z.B. großes Silo					
Eingang_Nr	Lieferant_Nr	Lieferdatum	Biomasseart	Einheit	Liefermenge_NH	Umsetzungsverluste	Menge_Netto_NH
2021_L1_#1	L_#1	30.09.2021	Maissilage	t FM	11.000	10%	9.900
2021_L1_#2	L_#1	01.10.2021	Maissilage	t FM	6.000	10%	5.400
2021_L1_#3	L_#2	01.10.2021	Maissilage	t FM			0
Summe							15.300
Lager_Nummer	2	z.B. kleines Silo					
Eingang_Nr	Lieferant_Nr	Lieferdatum	Biomasseart	Einheit	Liefermenge_NH	Umsetzungsverluste	Menge_Netto_NH
2021_L2_#1	L_#3	01.11.2021	Zuckerrüben	t FM			0
							0
Summe							0

Erfassung Lager 2022

Lager_Nummer	1	z.B. großes Silo					
Eingang_Nr	Lieferant_Nr	Lieferdatum	Biomasseart	Einheit	Liefermenge_NH	Umsetzungsverluste	Menge_Netto_NH
2022_L1_#1	L_#1						0
2022_L1_#2	L_#1						0
2022_L1_#3	L_#2						0
Summe							0
Lager_Nummer	2	z.B. kleines Silo					
Eingang_Nr	Lieferant_Nr	Lieferdatum	Biomasseart	Einheit	Liefermenge_NH	Umsetzungsverluste	Menge_Netto_NH
2022_L2_#1							0
							0
Summe							0

SURE Certification System

SUSTAINABLE RESOURCES
Verification Scheme GmbH

Fachverband BIOGAS

- The verification scheme (aka system provider) SURE (SUstainable REsources) is in accordance with the requirements of RED II.
- Defines verifiable criteria for the production of electricity and heat from solid biomass and biogas.
- SURE certified companies can demonstrate their compliance with RED II requirements in the relevant scope.
- Applicable in all EU Member States.

be RESPONSIBLE | be SUSTAINABLE | be SURE

IFTA AG
Natürlich. Für Zukunft.

SUSTAINABLE RESOURCES
Verification Scheme GmbH

Certificate

SURE-EU/DE-009/Z00252001

By means of an audit on 29.12.2021, documented in a report

IFTA AG
SURE-EU-Cert-DE-009
Neukirchstraße 26
13089 Berlin

confirms to

Biocraft Nohra GmbH
Schillerstraße 68
99096 Erfurt

the compliance with the requirements of the certification system

SURE-EU Certification Scheme

for demonstrating compliance with the sustainability criteria under Directive (EU) 2018/2001 of the European Parliament and the Council based on SURE Scheme documentation valid at time of the audit.

This certificate serves as proof of compliance with the requirements of Directive (EU) 2018/2001 for the following scope(s):

1101 Group manager of agricultural biomass producers
1301 Group manager of producers of waste and residues
2201 First gathering point of forest biomass
2301 Collector of waste and residues
3401 Biogas plant (raw biogas, fermentation)
5201 Electricity from biogas (raw biogas)
5202 Heat from biogas (raw biogas)

Date of certification decision: *28.01.2022*
This certificate is valid* from: *28.01.2022* to *27.01.2023*.

Berlin, 28.01.2022
Place and Date

Signature of certification body

IFTA AG

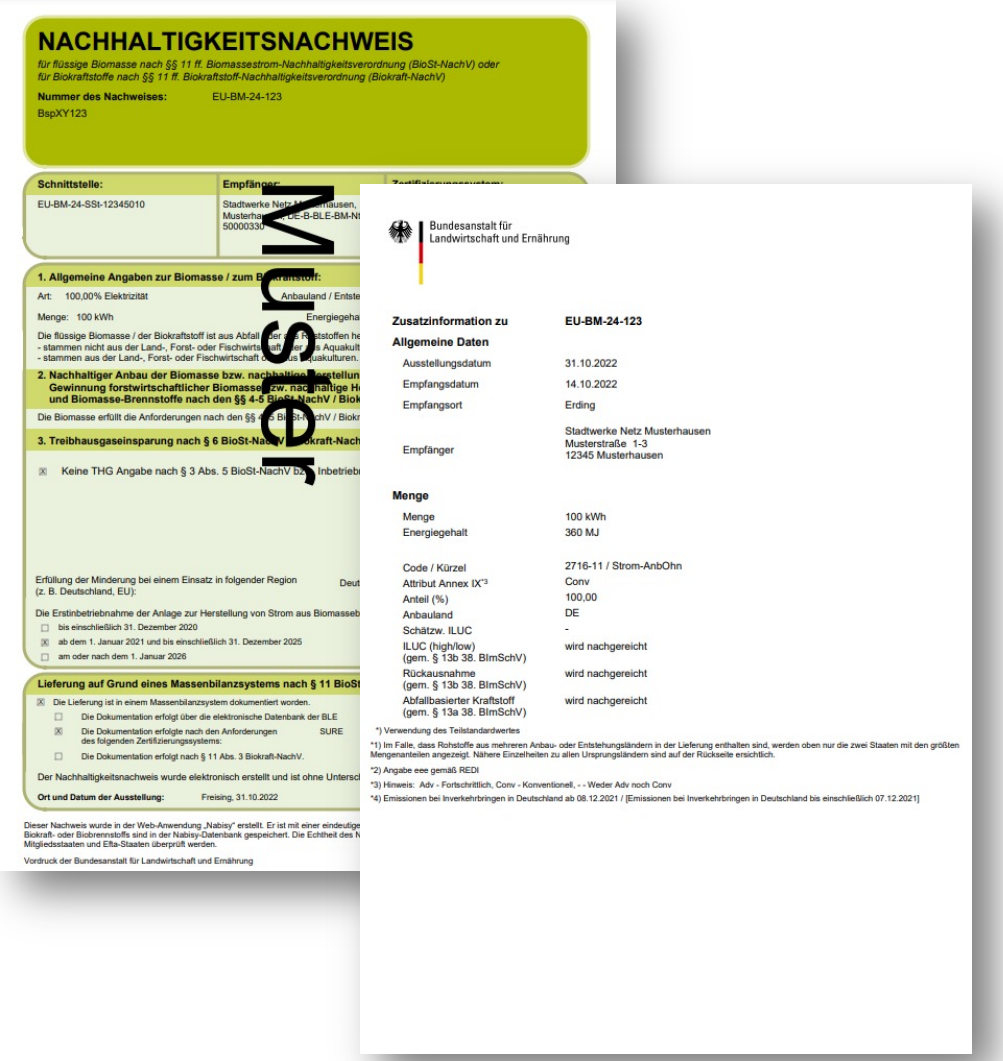
The Certification Body is responsible for the accuracy of the certificate. *Decisive for the validity of the certificate is exclusively the information given on the website of SUSTAINABLE RESOURCES Verification Scheme GmbH. Deviations can result for example from the withdrawal or suspension of an issued certificate. Since this certificate is property of the certification body, in eligible cases it must be returned on request.

Nabisy Database

Bundesanstalt für Landwirtschaft und Ernährung

Fachverband BIOGAS

- Nabisy (Nachhaltige Biomasse System): Web application for sustainable biomass operated by the Federal Office for Agriculture and Food (BLE).
- Plant operators must provide data on the sustainability of bioliquids and/ or liquid or gaseous biofuels.
- Plant operators generate a sustainability certificate for the power fed into the grid once for each calendar quarter.
- The quantities of power must be divided proportionally to the input materials. There is a biomass code for each input material.



NACHHALTIGKEITSNACHWEIS

für flüssige Biomasse nach §§ 11 ff. Biomassestrom-Nachhaltigkeitsverordnung (BioSt-NachV) oder für Biokraftstoffe nach §§ 11 ff. Biokraftstoff-Nachhaltigkeitsverordnung (Biokraft-NachV)

Nummer des Nachweises: EU-BM-24-123

BspXY123

Schnittstelle: EU-BM-24-SSt-12345010

Empfänger: Stadtwerke Netz Musterhausen, Musterhausen, DE-B-BLE-BM-Nt 50000330

1. Allgemeine Angaben zur Biomasse / zum Biokraftstoff:

Art: 100,00% Elektrizität

Menge: 100 kWh

Die flüssige Biomasse / der Biokraftstoff ist aus Abfällen oder aus Rückstoffen he
- stammen nicht aus der Land-, Forst- oder Fischwirtschaft oder aus Aquakult
- stammen aus der Land-, Forst- oder Fischwirtschaft oder aus Aquakulturen.

2. Nachhaltiger Anbau der Biomasse bzw. nachhaltige Herstellun Gewinnung forstwirtschaftlicher Biomasse bzw. nachhaltige H und Biomasse-Brennstoffe nach den §§ 4-5 BioSt-NachV / Biok

Die Biomasse erfüllt die Anforderungen nach den §§ 5 BioSt-NachV / Biokr

3. Treibhausgaseinsparung nach § 6 BioSt-NachV / Biokraft-Nach

☒ Keine THG Angabe nach § 3 Abs. 5 BioSt-NachV bei Inbetrieb

Erfüllung der Minderung bei einem Einsatz in folgender Region (z. B. Deutschland, EU): Deut

Die Erstinbetriebnahme der Anlage zur Herstellung von Strom aus Biomasseb
☐ bis einschließlich 31. Dezember 2020
☒ ab dem 1. Januar 2021 und bis einschließlich 31. Dezember 2025
☐ am oder nach dem 1. Januar 2026

Lieferung auf Grund eines Massenbilanzsystems nach § 11 BioSt
☒ Die Lieferung ist in einem Massenbilanzsystem dokumentiert worden.
☐ Die Dokumentation erfolgt über die elektronische Datenbank der BLE
☒ Die Dokumentation erfolgte nach den Anforderungen des folgenden Zertifizierungssystems: SURE
☐ Die Dokumentation erfolgt nach § 11 Abs. 3 Biokraft-NachV.

Der Nachhaltigkeitsnachweis wurde elektronisch erstellt und ist ohne Unterschr

Ort und Datum der Ausstellung: Freising, 31.10.2022

Dieser Nachweis wurde in der Web-Anwendung „Nabisy" erstellt. Er ist mit einer eindeutige Biokraft- oder Biobrennstoffs sind in der Nabisy-Datenbank gespeichert. Die Echtheit des N Mitgliedsstaaten und Efta-Staaten überprüft werden.

Vordruck der Bundesanstalt für Landwirtschaft und Ernährung

Bundesanstalt für Landwirtschaft und Ernährung

Zusatzinformation zu	EU-BM-24-123
Allgemeine Daten	
Ausstellungsdatum	31.10.2022
Empfangsdatum	14.10.2022
Empfangsort	Erding
Empfänger	Stadtwerke Netz Musterhausen Musterstraße 1-3 12345 Musterhausen
Menge	
Menge	100 kWh
Energiegehalt	360 MJ
Code / Kürzel	2716-11 / Strom-AnbOhn
Attribut Annex IX*3	Conv
Anteil (%)	100,00
Anbauland	DE
Schätzw. ILUC	-
ILUC (high/low) (gem. § 13b 38. BImSchV)	wird nachgereicht
Rückausnahme (gem. § 13b 38. BImSchV)	wird nachgereicht
Abfallbasierter Kraftstoff (gem. § 13a 38. BImSchV)	wird nachgereicht

*) Verwendung des Teilstandardwertes

*1) Im Falle, dass Rohstoffe aus mehreren Anbau- oder Entstehungsländern in der Lieferung enthalten sind, werden oben nur die zwei Staaten mit den größten Mengenanteilen angezeigt. Nähere Einzelheiten zu allen Ursprungsländern sind auf der Rückseite ersichtlich.

*2) Angabe eee gemäß REDI

*3) Hinweis: Adv - Fortschrittlich, Conv - Konventionell, - - Weder Adv noch Conv

*4) Emissionen bei Inverkehrbringen in Deutschland ab 08.12.2021 / [Emissionen bei Inverkehrbringen in Deutschland bis einschließlich 07.12.2021]

Planned Tighteninig: RED III

- The trialogue on RED III ended at the end of March:
  - **From 2026**, all biogas plants with a rated thermal input of 2 megawatts or more and that have been in operation for **at least 15 years in operation** will have to prove **greenhouse gas savings of 80 percent** as part of the sustainability certification.
    - Under the existing RED II, only facilities that began operation in 2021 or later were required to prove GHG reductions.
  - **New additional sustainability certification** for plants with a **biomethane** production from 200 m³ biomethane.
- The European Parliament is expected to pass the resolution before the summer break.
  - Since the text passage still requires interpretation and changes are still possible via an amendment with given majorities, we are still trying to soften the directive in our favor.

Fuel Emissions Trading Act (BEHG)

- The law on national certificate trading for fuel emissions (Brennstoffemissionshandelsgesetz) is part of the 2030 climate package
- Introduced emissions trading for the heating and transport sectors from 2021 onward.

- It will cover all fuel emissions that are not regulated by the EU Emissions Trading Scheme (ETS).
- Certificate prices.
  - The German ETS will have a fixed price from 2021 to 2025 and will subsequently increase to EUR 55 (USD 61)/tCO2e in 2025.
  - After the introductory phase, the emission certificates will be auctioned from 2026.

Fuel Emissions Trading Act (BEHG)

- Biomethane is generally subject to the BEHG.
- However, it is not affected by CO2-pricing:
  - Gas suppliers must prove sustainability in order to be able to apply "zero emission factor".
  - This requires:
    - Certification
    - Participation in the Nabisy database
    - Participation the national emissions trading registry (nEHS Registry)

Thank you for your attentation!
Any questions?

Fachverband BIOGAS
German Biogas Association
Association Allemande du Biogaz
Asociación Alemana de Biogás
www.biogas.org

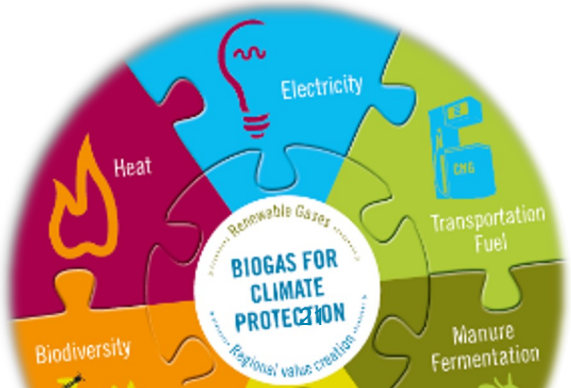
AVAILABLE ONLINE

www.biowaste-to-biogas.com

www.biogas-safety.com

www.biogas-to-biomethane.com

www.digestate-as-fertilizer.com



Christoph Tollmann
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