

Biogas and biomethane – policy status and development in Italy

GREENMEUP

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STATE OF THE ART

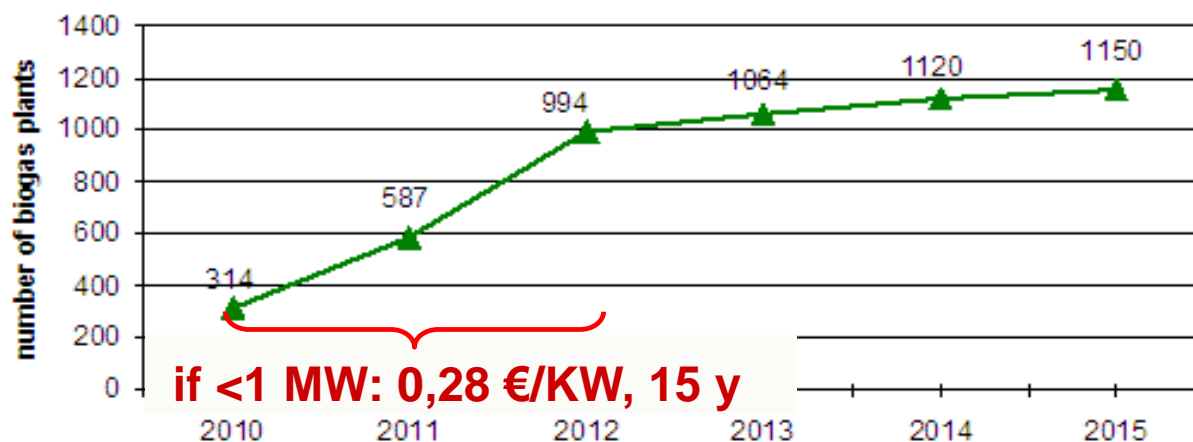
Biogas in Italy

- 2nd European market after Germany
- > 1.800 biogas plants built (*80% from agriculture*).
- > 1.000 MW_{el}

Biogas production in Italy from 2013 to June 2015



most of the plants were built before 2012



if <1 MW: 0,28 €/KW, 15 y

Only agricultural biogas plants. Year 2015: estimated data.

ACTUAL ITALIAN SCENARIO

ELECTRICITY SIDE

BIOMETHANE SIDE

End of 0,28 tariff

Rapid growth

PMG

Decree 02 March 2018

Decree 15 September 2022

Decree 02 March 2018



Maximum biomethane
production with subsidies:
1,1 billion m³/year

100% in the
transport
sector

STATE OF THE ART

Biomethane in Italy

DM 2018

100 biomethane plants built (55% waste & 45% agricultural)

719.130.563 sm³/year di biomethane

Ministerial Decree 15 September 2022



- The Decree 15 September 2022 has an estimated budget of 2.8 billion over a 15-year operational period. (**Feed In Tariff** and **Premium Tariff**)
- To require the support, the decree specifies a mandatory deadline (30 June 2026) to complete the work associated to the new construction or conversion plant.
- the total production capacity quota of the 2022 decree is 257,000 standard cubic meters per hour (Smc/h) (i.e. approximately 2.2 billion m3 per year).

DM BIOMETANO 15 SETTEMBRE 2022

INCENTIVE MECHANISMS

NEW INCENTIVE MECHANISMS ARE ESTABLISHED COMBINING TWO CLOSELY RELATED FACTORS.

CAPITAL INCENTIVES
A CAPITAL CONTRIBUTION
EQUAL TO 40% OF THE
INVESTMENT INCURRED
FOR NEW PLANTS

BY USING FUNDS AVAILABLE UNDER THE NRRP (INCLUDING LIQUEFACTION)



FEED-IN TARIFF

(STANDARD TARIFF) FOR THE PRODUCTION OF BIOMETHANE FOR OTHER USES OR FOR THE PRODUCTION OF ADVANCED BIOMETHANE FOR TRANSPORT

110 EURO/MWH
FOR PLANTS FUELLED WITH "NON-WASTE" AGRICULTURAL AND AGRO-INDUSTRIAL MATRICES

INCREASED TO 115 EURO/MWH FOR PLANTS >100 SMC / H

62 EURO/MWH
FOR PLANTS FUELLED WITH WASTE



Tabella 1 – Tariffe di riferimento poste a base d'asta [€/MWh] per la procedura competitiva BMT_A_2024_5

Tipologia di impianto	Categoria di intervento	
Impianto agricolo Cp ≤ 100 Smc/h	Nuova costruzione	Riconversione
	129,35 €	
	123,73 €	
Cp > 100 Smc/h		
Impianto a rifiuti organici Cp qualsiasi	69,74 €	

ELIGIBLE CAPITAL EXPENDITURE

- COSTS FOR **NEW OR RECONVERTED PLANTS** (BIOMASS MANAGEMENT AND ANAEROBIC DIGESTION FACILITIES AND MACHINERY, DIGESTATE STORAGE; BIOGAS PURIFICATION AND UPGRADING SYSTEMS; BIOMETHANE AND CO₂ TRANSFORMATION, COMPRESSION AND STORAGE; SYSTEMS AND EQUIPMENT FOR ON-FARM BIOMETHANE CONSUMPTION);
- MONITORING AND OXIDATION **EQUIPMENT** FOR BIOMETHANE, FLUE GAS AND FUGITIVE EMISSION MONITORING;
- COSTS OF **CONNECTION** TO THE NATURAL GAS GRID;
- COSTS RELATED TO PROCUREMENT OR PURCHASE OF **SOFTWARE** FOR PLANT MANAGEMENT;
- COSTS OF **DESIGN, SUPERVISION OF WORKS, TESTING, CONSULTANCY, FEASIBILITY STUDIES, PATENTS** AND **LICENCES**, RELATED TO THE ABOVE INVESTMENTS, UP TO AN OVERALL 12% OF ALL ELIGIBLE COSTS
- COSTS FOR **DIGESTATE COMPOSTING**. I COSTI PER LA FASE DI **COMPOSTAGGIO DEL DIGESTATO**.



TARIFFS

THE **REFERENCE TARIFF**, SET AS STARTING BID, IS THE SAME BOTH FOR BIOMETHANE INTENDED FOR TRANSPORT AND FOR OTHER USES, BUT DIFFERS FOR PLANTS FUELLED BY AGRICULTURAL MATRICES OR WASTE.



THE DECREE ESTABLISHES A **FEED-IN-TARIFF** FOR PLANTS UP TO 250 SMC. ALTERNATIVELY, A 'PREMIUM TARIFF' APPLIES BEYOND THIS THRESHOLD. THE ACCESS REQUIREMENTS FOR THE FEED-IN-TARIFF REMAIN UNCHANGED, A MAXIMUM OF 2 TIMES SWITCHING FROM ONE INCENTIVE SYSTEM TO THE OTHER IS ALLOWED.

FEED IN TARIFF - EQUIVALENT TO THE STANDARD TARIFF, NET OF THE PERCENTAGE DISCOUNT PROPOSED AND ACCEPTED IN THE COMPETITIVE PROCEDURES, AND INCLUDING THE MARKET VALUE OF THE SALE OF NATURAL GAS AS WELL AS THE VALUE OF ALL GUARANTEES OF ORIGIN.

FEED IN PREMIUM - EQUIVALENT TO THE DIFFERENCE BETWEEN THE STANDARD TARIFF AND THE AVERAGE PRICE OF NATURAL GAS PLUS THE AVERAGE VALUE OF THE GUARANTEES OF ORIGIN (GO) LEFT WITH THE PRODUCER.

PRODUCTION CAPACITY	BIOMETHANE INJECTION MODE	TARIFF
≤ 250 (Smc/h)	GRID WITH THIRD-PARTY CONNECTION OBLIGATION	FEED IN TARIFF (THE PRODUCER MAY OPT FOR THE FEED IN PREMIUM)
≤ 250 (Smc/h)	OTHER FORMS OF INJECTION	FEED IN PREMIUM
> 250 (Smc/h)	GRID WITH THIRD-PARTY CONNECTION OBLIGATION OR OTHER FORMS OF INJECTION	FEED IN PREMIUM

COMPETITIVE PROCEDURES AND CAPACITY QUOTAS

THE PROCEDURES (AT LEAST TWO PER YEAR) WILL BE OPEN FOR **60 DAYS** AND THE GSE (ENERGY SERVICE MANAGER) WILL BE REQUIRED TO REVIEW ALL PROJECTS WITHIN **90 DAYS** OF THE DEADLINE FOR EACH ROUND. THE CONTINGENTS ARE DISTRIBUTED IN EACH PROCEDURE. UNUSED QUOTAS ARE REALLOCATED FOR SUBSEQUENT PROCEDURES.

NR.	PROCEDURES		LIMIT PUBLICATION GRADUATORY	CAPACITY QUOTAS (Smc/h)
	OPENING	CLOSURE		
1	30/01/23	31/03/23	29/06/23	67.000
2	14/07/23	12/09/23	11/12/23	71.250
3	22/12/23	20/02/24	20/05/24	23.750
4	03/06/24	02/08/24	31/10/24	71.250
5	18/11/24	17/01/25	17/04/25	23.750
TOTALE				257.000

In the fifth and final auction the quantity available was 134,729.81 Smc/h

ADMISSION TO COMPETITIVE PROCEDURE REQUIREMENTS

SUBMISSION OF APPLICATIONS WILL REQUIRE:

- A **VALID PERMIT** FOR THE CONSTRUCTION;
- ESTIMATED **INDOOR DIGESTATE STORAGE** FOR BIOGAS RECOVERY WITH CAPACITY EQUAL TO AT LEAST 30 DAYS' PRODUCTION;
- ESTIMATED **GRID CONNECTION** IF ENVISAGED;
- COMPLIANCE WITH **SUSTAINABILITY REQUIREMENTS** REGARDING GREENHOUSE GAS EMISSION REDUCTION ACCORDING TO BIOMETHANE USE; AND
- AT LEAST **40% OF MANURE USE IN PLANTS** OPERATING IN NVZS AND HAVING A HIGH LIVESTOCK LOAD.

ANYONE WHO OWNS THE **BIOGAS PURIFICATION AND REFINING SECTIONS**

BIOMASS

FOR BIOMETHANE INTENDED FOR OTHER USES, THE DIET IS FREE (INCLUDING MAIZE); THE RATIO BETWEEN DIFFERENT MATRICES MUST ALWAYS AND IN ANY CASE DELIVER THE REQUIRED SAVING IN GHG EMISSIONS (> 80%) TO CERTIFY THE BIOMETHANE PRODUCED AS "SUSTAINABLE"

FOR BIOMETHANE USED FOR TRANSPORT, THE DIET MUST ALWAYS AND IN ANY CASE DELIVER THE REQUIRED GHG EMISSION SAVINGS (> 65%)
IN ORDER TO BE CERTIFIED AS ENVIRONMENTALLY SUSTAINABLE, ONLY BIOMASS GENERATING ADVANCED BIOMETHANE MUST BE USED.



TIMING OF WORKS

THE WORKS ELIGIBLE FOR FUNDING MUST BE COMPLETED BY NO LATER THAN **30 JUNE 2026**;

THE WORKS MUST NOT BE STARTED BEFORE THE PUBLICATION OF THE RANKING LIST AND COMPLETED WITHIN 18 MONTHS + A FURTHER 9 MONTHS WHERE A 0.5% TARIFF REDUCTION WILL BE APPLIED FOR EACH MONTH OF DELAY.



TARGET of Piano nazionale integrato energia e clima

Decree 02/03/2018
*biomethane subsidy
scheme*

2019
• 60 M
m³/y

2020

2021

2024
• 720
M
• m³/y

DM 15/09/2022 (biomethane
not only as a biofuel but also
for other end uses).

2030

PNIEC: 6 billion
m³/y

GREENMEUP Thank you!

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