



Sustainable Energy Connectivity in Central Asia



Funded by
the European Union

The European Union – Turkmenistan Sustainable Energy Days

International Conference

Sustainable Energy in Turkmenistan: prospects and challenges

State Energy Institute of Turkmenistan, Mary, 14 December 2023

Guarantee of origin for renewable energy – implementation experience in Georgia

Vakhtang Begashvili,
CEO of MES Ilc



Table of Content

- 1.Introduction to GO
- 2.Legal Foundation & Process
- 3.GO Benefits & Impact for Electricity Producers and Consumers
- 4.Energy Relationships Empowered by GO
- 5.GO Ecosystem Overview & Roles
- 6.Market Dynamics & Pricing
- 7.Real-world Examples: GO System in Germany
- 8.Expected future trajectory of GO
- 9.Conclusion & QA

Introduction to GO

GO is EU certification ensuring the **renewable origin of energy**.

It certifies that energy comes from sustainable sources like wind, solar, hydro, or biomass.

GO serves as a critical instrument in the **promotion of renewable energy adoption**, offering transparency in the energy market by guaranteeing the credibility of the energy's renewable origin.

By enabling consumers (**businesses or individuals wishing to document the origin of their electricity consumption and its greenhouse gas footprint**) to make informed choices about the energy they use, GO contributes to the broader sustainability goals of **reducing carbon emissions and dependence on fossil fuels**.

One Guarantee of Origin is equivalent to 1 MWh of electricity produced.

Legal Foundation & Process

The certification process for GO is regulated by specific directives within the European Union (the RES Directive 2018/2001/EC and its predecessor 2009/28/EC).

These directives set out the standards and procedures for verifying and certifying the renewable origin of energy.

The process includes rigorous verification from energy generation through to obtaining the GO certification, ensuring **transparency, credibility, and traceability** of the energy's origin.

Standardised Process:

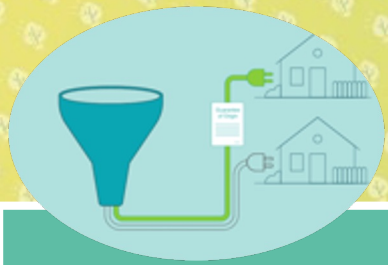
Application for GO

Verifications of
Energy Source

Certification
Process

Issuance of GO
Certificate

Assures **consumers and stakeholders** that the energy they are **using or investing** in is genuinely from renewable sources.



GO Benefits & Impact for Electricity Producers and Consumers

Aspect	Electricity Producers	Consumers (Businesses/Individuals)
Certification of Renewable Energy	Allows certification of energy from renewable sources.	Provides transparency regarding renewable energy usage.
Market Credibility	Enhances credibility by showcasing commitment to renewables.	Builds trust and credibility in energy sourcing.
Access to Green Markets	Grants access to green energy markets, better market opportunities.	Enables informed choices in purchasing renewable energy.
Compliance with Regulations	Ensures compliance with regional and national mandates.	Supports Corporate Social Responsibility initiatives, aligning with sustainability goals.
Encouragement for Investment	Encourages investment in renewable energy infrastructure.	Reduces carbon footprint and supports cleaner energy, environmentally responsible choices.

Without GO

- **Less Trust**
- **Lower Transparency**

With GO

- **Increased Trust**
- **Higher Transparency**

Energy Relationships Empowered by GO

GO Purchasing Options

- Trough suppliers or wholesale markets.
- Purchases directly from producers or brokers.

Impact on Cash Flow, not Grid Dynamics

- GOs don't affect electricity sales or grid operations.
- Ensures transparent financial support to producers.

Empowering Consumer Choice

- Customers support specific plants, technologies, and locations.
- Back recent projects or certified labels.

Tailored Renewable Energy Solutions

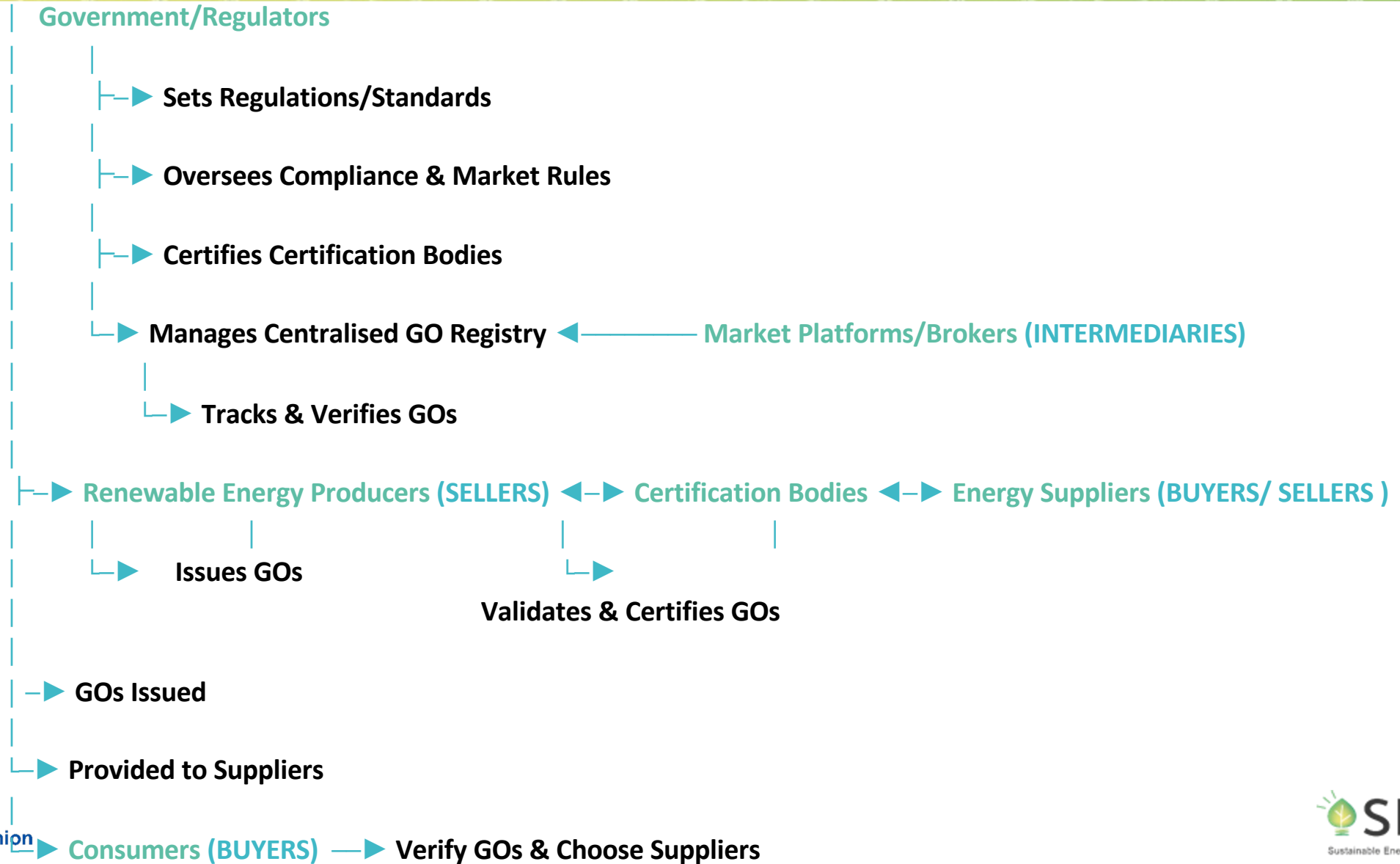
- Meets renewable energy needs within a country or multiple markets.
- Adapts based on business location and preferences.

**Power to Choose:
Consumers are Empowered by GO in Energy Relationships**



Funded by
the European Union

GO Ecosystem Overview and Roles



Market Dynamics and Pricing

Impact on Market:

- GOs influence market dynamics by reflecting the demand for and availability of renewable energy.
- They contribute to price variations in the energy market, responding to shifts in consumer demand for green energy sources.

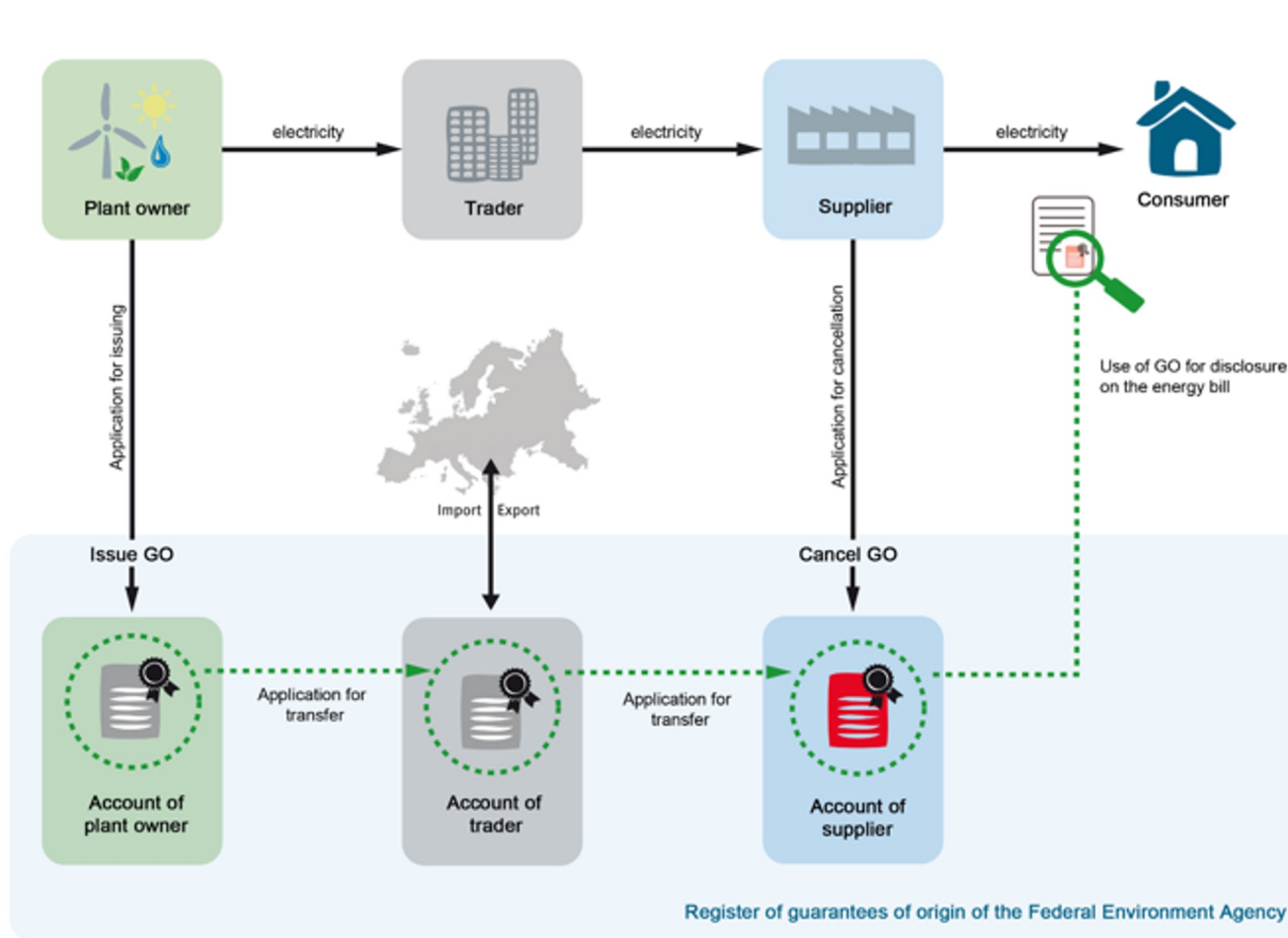
Price Determinants:

- Pricing of GOs is influenced by various factors such as regional energy policies, the proportion of renewable energy in the market, and consumer preferences.
- Supply-demand dynamics and regulatory changes also affect GO prices.

Economic Implications:

- GO pricing impacts renewable energy investment and market competitiveness.
- It serves as an economic incentive, encouraging investment in renewable energy sources while fostering sustainable market competition.

Real-world Example: GO System in Germany

















Expected future trajectory of GO

- Technological Advancements:** Ongoing technological advancements, including blockchain and smart grid integration, are revolutionizing GO tracking and certification, ensuring heightened accuracy and transparency in renewable energy sourcing.
- Policy Evolution and Market Integration:** Anticipated policy evolutions are poised to streamline GO frameworks, fostering cross-border trade and the integration of renewable energy markets.
- Consumer-Centric Solutions:** Simplified GO certification procedures are set to cater to rising consumer demand for green energy, enhancing accessibility and participation.
- Global Expansion and Harmonisation:** The potential for GOs to become a global benchmark underscores challenges in aligning diverse systems while aiming for harmonisation and broader international acceptance.
- Environmental Impact and Climate Goals:** GOs continue to play a pivotal role in reducing emissions and advancing renewable energy sources, driving progress toward global climate objectives.
- Industry Collaboration:** Collaborative efforts among energy sectors, technology innovators, and policymakers are propelling innovations within GO systems, fostering future advancements.

Over 400 RE100 companies have made a commitment to go '100% renewable', suggesting the increased future demand of GO (Some companies on the next slide)

Some Examples of '100% renewable' Companies

Name	Joining year	Target year		Industry	Headquarters	
 3M	GOLD MEMBER	2019	2050	Materials	United States of America	+
 Accenture	GOLD MEMBER	2019	2023	Services	Ireland	+
 Adobe	GOLD MEMBER	2015	2025	Services	United States of America	+
 Airbnb	GOLD MEMBER	2021	2021	Hospitality	United States of America	+
 Anheuser-Busch InBev	GOLD MEMBER	2017	2025	Food, beverage & agriculture	Belgium	+
 Apple	GOLD MEMBER	2016	2021	Manufacturing	United States of America	+
 AstraZeneca	GOLD MEMBER	2016	2025	Biotech, health care & pharma	United Kingdom	+
 EY	GOLD MEMBER	2022	2025	Services	United Kingdom	+
 First Solar	GOLD MEMBER	2020	2028	Manufacturing	United States of America	+
 Fujitsu	GOLD MEMBER	2018	2030	Services	Japan	+
 General Motors	GOLD MEMBER	2016	2035	Manufacturing	United States of America	+
 Google	GOLD MEMBER	2015	2017	Services	United States of America	+
 Grupo Bimbo	GOLD MEMBER	2018	2025	Food, beverage & agriculture	Mexico	+
 Hyundai Motor Company	GOLD MEMBER	2022	2045	Manufacturing	Republic of Korea	+

Food for Thoughts: Reflecting on the potential of GO certificates, how might their evolution shape the landscape of renewable energy adoption and market trust moving forward?



Thank you!

Vakhtang Begashvili

