



# Assistance to NERC: Regulatory Support Program

Accreditation, certification,  
verification and audit of E-  
RES

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AF-MERCADOS  
ENERGY MARKETS INTERNATIONAL  
*Finding new paths for energy markets*

# Objectives

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- Accreditation / Approval of E-RES facilities
- Certification of RES generation – Issuing Guarantees of Origin (GO)
- Organisational and Personnel Capabilities



**System of  
Guarantees of  
Origin for RES**



# Main components of the GO system

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## **Issuing Body (IB):**

- The designated competent body that supervises the issuance, transfer and cancellation of GOs.
- The IBs shall have non-overlapping geographical responsibilities, and be independent of production, trade and supply activities.

## **Electronic Registry (ER):**

- The software platform used to ensure that GOs are issued, transferred and cancelled electronically and are accurate, reliable and fraud-resistant.



# Main Procedures to be supported by a GO System

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- Application for registration to Electronic Registry (ER)
- Assessment / Approval of registration and provision of access to the ER
- Application for issuing of GOs
- Issuing of GOs
- Transfer of GOs
- Use and/or cancelation of the GOs
- Monitoring / Auditing of generation facilities



# Main features of the Electronic Registry

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- Web-based, accessible via internet
- Operation assimilates to a web-banking system, i.e.:
  - RES Generators obtain an (electronic) account in ER for each RES plant owned
  - This account is credited with GOs that are issued by the Issuing Body
  - This account is debited with GOs that are used and/or cancelled, and/or transferred
  - The owner of the account can transfer GOs to other users of the system
  - The ER is secure and with controlled access
- ER includes a publicly available reporting system that allows overview of GOs issued, transferred, canceled, etc.



# Recommendations on Approval of E-RES facilities

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- First step for registering to the Electronic Registry
- Approval process:
  - Simplified: wind, solar hydro - except pumping hydro) – Auditing is optional
  - Detailed: facilities burning biomass/biogas/waste. Auditing highly recommended
  - Audit purpose: to verify the conditions of RES generation and details of facility installation and operation



# Recommendations on Monitoring of E-RES facilities

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- Desktop monitoring
  - Regular assessment of generation data / identification of significant deviations on selected indicators
  - Comparison / benchmarking of indicators of similar time periods / similar facilities, etc.
- Auditing of facilities
  - Performed in combination with desktop monitoring
  - Visit and audit of facility on short notice
  - Verification of validity of registration conditions, generation data, etc.



# Recommendations on Certification/Issuing of GO (1)

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## Regarding GO:

- GOs are used for proving to a final customer that a given share of energy was produced from renewable sources. After their use the GOs are cancelled.
- Issued to a RES generator after he applies for issuing.
- Issued in electronic form and are available through the Electronic Registry.
- Issued for electricity produced using energy from RES. If non-RES and RES sources are used, GOs are issued only for the part of electricity produced from RES fuels.
- GOs have a standard size of 1 MWh each.
- Valid for 12 months after the end of the time period that the guaranteed electricity was generated in. After this period, the GOs expire.
- Can be transferred from one holder to another.





# Recommendations on Certification/Issuing of GO (2)

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## Regarding Electronic Registry:

- Used for the issuing, transferring, cancellation and general management of GOs.
- Generators have to register with the Registry before applying for issuing of GOs.
- Registration to the Registry is voluntary.
- All transactions on GOs (i.e. issuing, transferring, etc.) are carried out through the Registry



# Recommendations on Certification/Issuing of GO (3)

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## Regarding Issuing Body:

- Is responsible for the management of the GO system.
- Is responsible for the operation of the Electronic Registry.
- Checks the data and/or audit generators prior to their registry in order to conclude that the generator is producing electricity from RES and that adequate conditions for measuring the RES electricity generated are in place.
- Checks the data provided by the generators for the issuing of GOs.
- Monitors / audits the generation facilities



# Recommendations on Organization / Personnel of IB

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- Roles of staff
  - Supervisor (or Head of the IB)
  - Technical Expert
  - Auditor (biomass / other RES generation)
- Staffing requirements
  - Number of generation facilities
  - Time for approval of applications (registration of facilities, issuing of GO)
  - Frequency of audits
- Training / capacity development
  - Six training components proposed
  - Legal framework, res-e generation, metering, GO system and Electronic Registry, desktop monitoring and analysis, auditing



# Expected developments

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- CMU is expected to decide on appointment of Issuing Body
- CMU approves the regulation on GO
- Development of the Electronic Registry is initiated



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# Thank You

