

Investments in Agriculture in Bulgaria

Opportunities for RES Integration under the Strategic Plan 2023-2027

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Presentation within the "EAGER" Project Framework

Conference: "RES (PV) in the Agricultural Sector"

Gyoksel Koshudzhu - Chief Expert, Contracting Directorate,
State Fund "Agriculture"

1. Context of the EAGER Project & Green Transition

EAGER Project Role: Driving sustainable energy solutions and knowledge transfer in the EU agricultural sector.

Rising Challenges: Surging energy prices, climate volatility, and mounting pressure to reduce carbon footprints in farming.

The Solution: Decarbonizing agriculture by unlocking massive synergy between food production and Renewable Energy Sources (RES).

Strategic Goal: Ensuring long-term competitiveness, resource efficiency, and local energy independence for Bulgarian farmers.

2. Strategic Plan for Agricultural Development (2023-2027)

A New Paradigm: The Ministry of Agriculture framework pivots drastically toward green, climate-resilient capital investments.

Shift in Funding: Moving away from passive traditional subsidies into active, market-oriented modernization.

Budgetary Focus: Substantial resources allocated to boost farm energy efficiency, local storage, and ecological balance.

Core Goal: Accelerating the adoption of on-farm clean energy to lower operating costs and secure rural development.

3. Intervention II.G.1: Investments in Agricultural Holdings

Eligible Activities: Construction of photovoltaic systems (PV), solar thermal collectors, and energy storage systems (batteries).

The Strict 'Own Consumption' Rule: Systems are funded ONLY for self-consumption. Grid-sale capacity is prohibited; power must match historic/proven needs.

Financial Framework: Maximum eligible cost limit of up to €1,000,000 per applicant.

Subsidy Intensity: Base rate of 50%, scaleable up to 65% for young farmers, organic producers, or sensitive mountainous sectors.

4. Intervention II.G.1.1: Environmental & Climate Investments

Targeted Environmental Scope: A dedicated green procedure carrying a specific budget of €84.6 Million.

Scoring Advantage: High evaluation preference (bonus points) for projects integrating smart circular economy elements.

Technological Focus: Funding smart grids, advanced energy management systems, and high-capacity battery storage setups.

Strategic Impact: Mitigating localized agricultural emissions while actively safeguarding local biodiversity.

5. Intervention II.G.2: Processing of Agri-Products

Target Audience: Agri-processors, dairies, slaughterhouses, wineries, and canneries facing high baseline energy grids.

Eco-Focused Sub-Procedure (II.G.2.1): Explicitly dedicated to green transition, waste-to-energy, and local efficiency gains.

RES Scope: Installation of rooftop industrial PV arrays, biomass facilities, and comprehensive heat recovery systems.

Economic Safeguard: Shields margins against free-market electricity volatility while lowering carbon footprints of consumer goods.

6. Intervention II.G.2: Processing of Agri-Products

Intervention	Number of applications including renewable energy costs	Total amount of claimed RES costs (excluding VAT)
II.G.1 Investments in agricultural holdings	79	9 992 692,70 €
II.G.1.1 Investments in agricultural holdings aimed at protecting environmental components	448	110 251 861,84 €
II.G.2 Investments in the processing of agricultural products	101	23 344 821,81 €
II.D.2.1 Investments for the processing of agricultural products aimed at protecting the components of the environment	372	203 705 176,29 €
II.G.3 Investments in non-agricultural activities in rural areas	531	77 878 650,72 €

7. Agrivoltaics (APV) – The Future of On-Farm Energy

Dual-Use Land Concept: Simultaneous crop cultivation/grazing and solar power generation on the exact same plot.

Microclimate Benefits: Panels provide partial shade, drastically reducing soil evaporation and protecting crops against intense heat waves.

Physical Crop Safety: Elevated physical solar tracking structures act as robust defense shields against hail and extreme storms.

Operational Power: Provides immediate, low-cost off-grid electricity directly to remote automated irrigation systems and cold-storage facilities.

8. National Regulatory & Compliance Framework

Legal Alignment: All installations must stringently align with the Bulgarian Renewable Energy Sources Act (ЗЕВИ).

Environmental Clearance: Mandatory compliance filings with Natura 2000 to verify no ecological degradation occurs.

The Certified Energy Audit: Applications require an official Energy Audit or technical profile proving capacity strictly matches historical farm use.

Grid Approvals: Early administrative steps are vital to secure prompt Grid Connection Statements from regional operators (ЕРД).

9. Economic Viability & Return on Investment (ROI)

Market-Based ROI: Standard payback for unsubsidized agricultural self-consumption PV arrays sits between 4 to 6 years.

With Strategic Plan Funding: A 50% - 65% capital grant slashes the payback period down to an impressive 2 to 3 years.

Operational Hedging: Locks in predictable, zero-marginal-cost electricity for up to 25+ years of operational asset lifespan.

Value Appreciation: Instantly elevates the baseline market asset value of the agricultural property and infrastructure.

10. Implementation Challenges & Key Recommendations

Grid Delays: Be prepared for administrative bottlenecks during utility grid operators' approval queues.

Over-Sizing Risk: Avoid over-designing production capacity; grid export bans can render surplus capacity economically unviable.

Storage Imperative: Incorporate battery storage solutions to maximize localized self-consumption when peak solar hours mismatch farm operations.

Professional Planning: Partner early with specialized legal, structural, and energy consultants to avoid technical disqualification.

11. Conclusion & Future Outlook

Unprecedented Leverage: The 2023-2027 Strategic Plan presents an unmissable structural window for green modernization.

EAGER Project Value: Serves as a crucial platform for cross-border knowledge transfer and scaling proven green practices.

The Outcome: Smarter, cleaner, and decoupled agricultural operations capable of thriving under European Green Deal targets.

Thank You for Your Attention!

Questions & Discussion

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Project "EAGER" Framework