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United Nations Economic
Commission for Europe

Removing Barriers to Energy Efficiency Improvements in the State Sector in Belarus

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Introduction

- **Barriers:**
 - dependence on non-return budgetary funds
 - lack of knowledge and experience of work with an investor
 - frequent changes in rules for business
 - need for building up a modern energy management system
 - poor quality of energy auditing
 - insufficient conditions for the development of ESCO
 - cross subsidizing
 - investments in core capital of state and municipal companies are embarrassed
 - need in laws on energy services (e.g. ESCOs), electric-power industry, cogeneration, heat supply
 - **It is important to create conditions for:**
 - motivating companies to implement the best available technologies
 - increasing the share of borrowed and own funds in the total investments in energy efficiency
 - sustaining favorable investment environment in this sphere
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The Project main statements

- **The aim:** to reduce greenhouse gas emissions by removing barriers to implementing energy efficiency activities and services of reducing the specific consumption of fossil fuels in Belarus
 - **The objective:** to create conditions for increasing local and foreign investments in EE projects in the state sector
 - **The strategy consists of three main directions:**
 - **Direction 1:** enhancing the incentives for state organizations to invest in energy saving activities
 - **Direction 2:** promoting an increase of loan funds in the total investments required to implement energy efficiency activities in the state sector
 - **Direction 3:** providing sustainability and replication of the results of the Project through the implementation of special investment and information instruments
 - **Funding and the period:** 1.4 million dollars; 2007-2011
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Direction 1: incentives system

- The regulatory acts are initiated on
 - accumulation and reinvestment of budgetary funds gained as a result of energy savings by organizations of the state sector
 - staff incentives to save energy resources
 - Critical analysis and evaluation of best practices of effective EE investments
 - ESCO and other modern schemes
 - working out recommendations for their implementation in Belarus (participation in the development of a new version of the Law on Energy Saving)
 - Barriers that still in place
 - short period of budget offsetting
 - energy norms are established on a basis of the level achieved
 - inconsistent tariff policy effects on the stability of local investments
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Direction 2: reduction of grant funding

- The regulatory acts are initiated on
 - increasing the share of loan funding
 - the mechanism of preferential crediting of energy saving activities
 - the order of financing and use of republican and local budgetary funds
 - instructions and criteria for the competitive selection of energy saving activities
 - the order of formation and use of the Energy and Resources Saving Fund
 - Suggestions:
 - principles of norm-setting for FER consumption
 - improvement of tariff policy
 - legal framework for ESCOs
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Direction 2: summarized business model

- Creation of summarized methodology (business model) of implementing EE projects in Belarus
 - considering the best current practices of foreign and local investments in improving energy efficiency
 - training materials and guidelines on the most effective financing schemes and the typical design cycle for the major categories of energy efficiency projects
 - Activities and training sessions to enhance the staff capacity on
 - Energy management
 - energy auditing
 - business modeling
 - ESCO schemes
 - new ways of improving energy efficiency
 - business planning
 - developing a feasibility study for bankable proposals
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Direction 3: sustainability and replication of the results

- Establishment of International Energy Centre
 - Development and evaluation of investment projects
 - the investment program of the Department for Energy Efficiency
 - the investment program of International Energy Centre
 - Implementation of the projects in the state sector, 15.36 million U.S. dollars
 - 10.99 million U.S. dollars from loans
 - 4.12 million U.S. dollars from equity capital
 - 0.25 million U.S. dollars from the budget on a return basis
 - GHG emission reduction of 27 kt CO₂eq (approx. 82 kt CO₂eq since the beginning of the Project)
 - The projects in the state sector amounting to 67 million U.S. dollars are initiated
 - projects with unique for the country and the CIS technical solutions
 - At least 120 million U.S. dollars are guaranteed
 - National Internet-based platform for energy efficiency
 - database of technologies, NLA, projects, typical business models
 - forum and special tools
 - Social activities, training and PR-campaigns
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International Energy Centre (IEC)

- IEC is the Project instrument for:
 - comparative analysis of typical cycles of energy saving projects
 - exchange of knowledge and experience among involved parties
 - providing training in practice
 - testing of new investment schemes
 - assistance in developing an investment portfolio
 - increase of investments
 - IEC has been created as a CJSC in September 2010
 - statutory fund amounts 200 hundred U.S. dollars
 - Shareholders:
 - JSC BelVneshEconombank (Belarus) – 52% shares
 - JSC National Space Bank (Russian Federation)
 - StroySektor LTD (Russian Federation)
 - TAWI Consultant LTD (Poland)
 - The investment portfolio amounts to 120 million U.S. dollars
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IEC activities

- The Center project portfolio consists of three main areas
 - conversion of boiler plants in mini-CHP on the GRA and GTU basis
 - modernization of pumping and compression equipment based on modern technical solutions and new technologies
 - utilization of secondary heat energy resources in the industry
 - The estimated annual impact of the implementation of the first activities:
 - savings of nearly 135 tons of fuel equivalent
 - reducing emissions of 215 tons of CO2 equivalent
 - Future plans
 - in the first area:
 - three cogeneration units in Vaukavysk housing
 - cogeneration and trigeneration systems in a number of objects in Slutsk using gas reciprocating and gas turbine technologies
 - energotechnological complex "Krichevcementoshifer" and MZSI
 - in the second area:
 - replacement of pumping equipment at the enterprises of housing and communal services in Brest, Minsk and Grodno regions
 - in the third area:
 - projects for heat utilization in gas compressor stations (GCS) to generate electrical energy on Renkin organic cycle basis
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Reports and Publications

- Preliminary analysis of policies and measures of improving energy efficiency in Belarus (at the request of ACF EDB)
 - The practice of investment schemes and management of investment in the energy efficiency of the state sector. Recommendations for implementing the existing experience in Belarus
 - Suggestions for improving the legal and institutional frameworks to encourage investments in energy efficiency
 - The legislation for the implementation of investment schemes in energy efficiency activities and suggestions for its improvement
 - Suggestions for improving the legal and institutional frameworks for the establishment of norms of energy resources consumption and tariff policies to encourage investments in energy efficiency
 - Monitoring the effectiveness of investments in energy efficiency on a basis of several state partner organizations
 - Analysis of financing schemes for the creation of small power generating companies
 - Medium-term Strategy and Action Plan of CJSC IEC with additional areas of its activities
 - Summarized business model of design and investment cycle for implementing EE projects in the Republic of Belarus
 - Energy management and auditing: methodology and standards, foreign and local practice
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Thank you!

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