



“Insights and recommendations on key policy changes needed to stimulate renewable energy investments”

Gottfried Heneis – Senior Expert – Energy Changes

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Background



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- Natural Gas about 40% of Ukraine's Primary Energy Supply
- RES at least **11%** of Total Energy Consumption until 2020 (Goal of NREAP – National Renewable Energy Action Plan)
- **16 billion EUR** in Renewable Energy Investments
- Drastic Decrease in Renewable Energy Investments since 2014 and almost Non-Existing Investment Flows in 2015

➔ Interviews with International and Domestic RE Project Developers and Investors to stimulate Large-scale Investments



Problems & barriers



Bankability/1

- Insurance for Counterparty Risk
 - MIGA is no longer providing political insurance for project in Ukraine
 - Private insurance is very expensive and sometimes not available
- Power Purchase Agreement (PPA)
 - PPA is signed only after the building and commissioning of the facility
 - Template PPA is considered not to be acceptable by most lenders
 - Re-signing the PPA annually against international practice



Problems & barriers



Bankability/2

- Balancing Costs for wind and PV developers (Draft Law On Electricity market, No. 4196)
 - Lack of high quality wind data
 - Nascent level of RES penetration in the market
 - Lack of sufficient forecasting technologies



Problems & barriers



Project Development/1

- Grid Access
 - Bureaucracy in the energy company responsible for the grid connection
- Permitting
 - Lengthy and complex system of approvals, permitting, and local government engagement that requires extensive time
 - Procedures can be distinct in different regions
 - These negative factors can lead to corruption



Problems & barriers



Project Development/2

- Land Zoning
 - Agricultural cannot be used for RES installations
 - Re-zoning land for RES is very complicated and long procedure
- Develop Capacity in regions for RE
 - General shortage in the capacity to develop renewable energy projects
 - Missing information regarding resource data base for RES projects development in regions
 - Low awareness of the benefits of RES



Problems & barriers



Overarching Issues

- National Commitment on RES
 - Medium and the long term goals are not introduced
- Introduce Biomass Heat Market
 - Absence of a competitive heat market in Ukraine
 - Local monopolies in heat market
- Biofuels for transport
 - No clear targets or measures for the biofuel potential to be realised
- Dividend Repatriation
 - Currency Conversion and Exchange Transfer restrictions imposed by the National Bank of Ukraine

Recommendations for Ukrainian Government



Bankability/1

- Insurance for Counterparty Risk
 - Bi- and Multilateral Agencies: like MIGA (Multilateral Investment Guarantee Agencies –World Bank Group)
 - Export Credit Agencies, Government Funded Account
 - Replacement of offtake counterparts
- Power Purchase Agreement (PPA)
 - Timing of signing and green tariff at an early stage (not commissioning) – Enter into conditional, time-limited PPA (2-3 ys.)
 - Duration Extension of guaranteed offtake till the 1st January 2030
 - Improvement of templates according to international standards

Recommendations for Ukrainian Government



Bankability/2

- Balancing Costs (for wind and PV developers)
 - Identify parameters of a phasing approach learning from **EU-best practice**
 - A maximum cap on balancing costs as **5 % of revenue**



Recommendations for Ukrainian Government



Project Development/1

- Grid Access
 - Transparent process regarding the available capabilities of the electrical grid
 - All costs should be known upfront
 - Regularly Reports on technical capabilities of power grids
- Permitting
 - One-stop-shop
 - One independent central agency
 - Electronic permitting
 - Small fee per application



Recommendations for Ukrainian Government



Project Development/2

- Land Zoning
 - Allowance for construction of RE projects without changing the utilization purpose of land, i.e. agricultural purposes
- Develop Capacity in regions for RE
 - Mapping existing and prospective projects
 - Development of a description of all steps for RE projects implementation for investors
 - Human Capacities: seminars with experts; awareness campaigns; educational programs; cooperation between colleges, universities and industry, RE-developers
 - Leading role: SAE

Recommendations for Ukrainian Government



Overarching Issues/1

- National Commitment on RES
 - Development of sector roadmaps: power generation; heating (including CHPs) and biofuels for transport
 - Aspects for a roadmap such as assessment of aspects; identifying necessary regulatory changes; identifying and assigning national & local roles and responsibilities; etc.
- Heat Market Diversification with Biomass
 - Defining an accepted model from coal and gas to biomass for heat market in Ukraine
 - Promoting the use of Biomass for CHP

Recommendations for Ukrainian Government



Overarching Issues/2

- Biofuels for transport
 - Re-evaluation of biofuels from a classification and taxation perspective
- Dividend Repatriation
 - Lifting transfer restrictions after paying taxes in Ukraine
 - Consultations with relevant parties

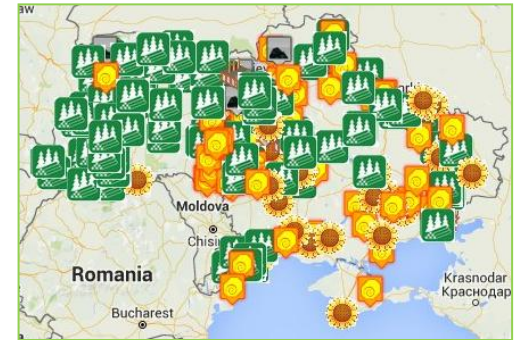


Recommendations for International Donors



Overarching Issues/3

- Resource Maps
 - Assessment of Ukraine's RE potential by region/city
 - Feasibility studies, training programs, permitting process
- Financing possibilities on Ukrainian Market
 - Access to financing from the local banks on reasonable terms and conditions
 - Donors should help with a grant and guarantee scheme to reduce project development costs



Priorities and next steps



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- Implementation of short-term recommendations
 - PPA Timing
 - PPA Template
 - PPA Duration
 - Mapping of existing and prospective projects
 - Dividend repatriation
 - Land zoning
- Bankability and Risk Insurance
- Lean Permitting Process
- Sector-specific Roadmaps



Дякуємо за увагу!
Thank you!

Gottfried Heneis

Senior Expert, Energy Changes, Austria

gottfried.heneis@energy-changes.com

Julia Usenko

Head of All-Ukrainian Sustainable & Investment Agency (SDIA), NGO

info@sdia.org.ua

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