

UNDP/GEF UNECE Committee for Energy Efficiency of Belarus

"Biomass Energy" Project Progress



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Biomass Energy from Wood Waste

Total funding \$8.936 m:

GEF – \$3.374 m (\$2.05 m already spent)
(including \$1.54 m for Revolving Fund, \$0.88 m of
which already distributed to demonstration sites)

**Committee for EE – \$2.19 m (\$1.5 m
already spent)**

**Site owners – \$3.37 m (\$1.2 m already
spent)**



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Demonstration Sites

- 1. Boiler house of private company Volat-1 (2 units 1MW each)
- 2. CHP 2.5MW_{el} of JSC Mostovdrev (boiler house conversion)
- 3. CHP 2.5 MW_{el} of Minskenergo in Vileika (boiler house conversion)
- 4. Vileika forestry enterprise (biomass processing and supply to Vileika CHP)
- 5. CHP 1.0 MW_{el} of Petrikov utility company (separate module)



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First demonstration site Volat-1 Boiler house (2 boilers 1MW each)



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Joint Stock Co. Mostovdrev Construction of biomass boiler for CHP



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Vileika CHP Construction Preparation of boiler house building



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Vileika district

Forest residues to be used for Vileika CHP



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Revolving Fund

- **GEF contribution – \$1.54 m:**
 - ◆ \$0.88 m already invested in demonstration sites
- **Committee for EE contribution – \$1.54m:**
 - ◆ \$0.37 m transferred to RF in 2005
 - ◆ \$0.45 m to be transferred in 2006



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Geographic Information System (GIS)

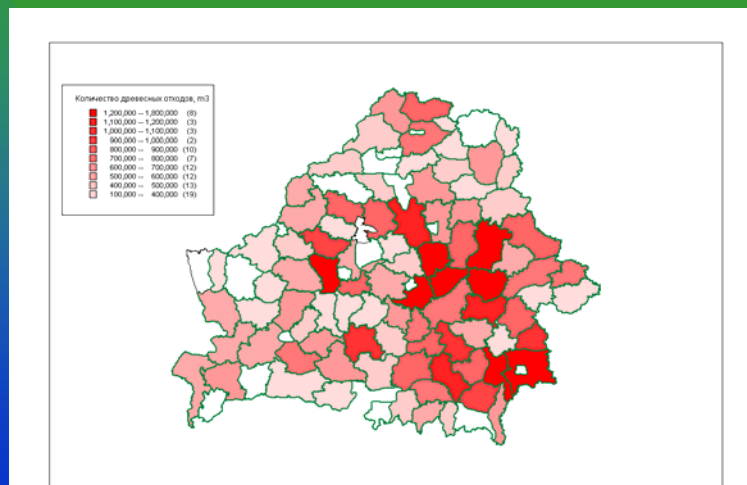
Geographic data:

- existing boilers
- forest resources
- wood waste resources
- transportation system (roads, rail, water)

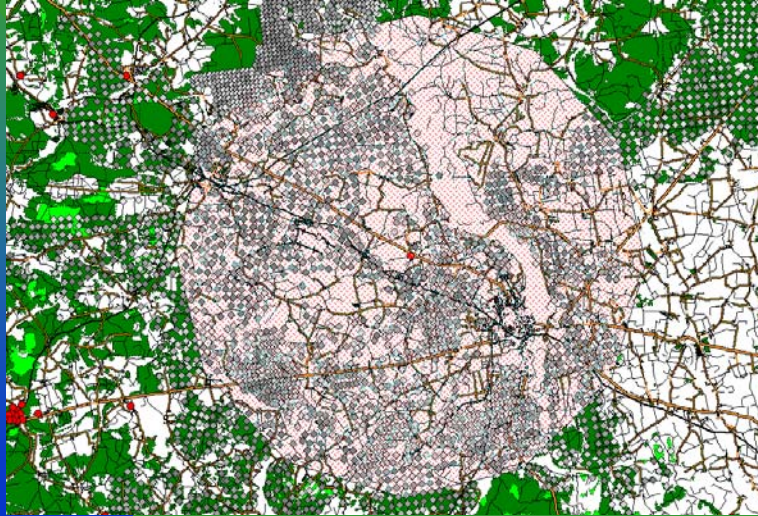


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Assessment of forest residues availability in Belarus



Assessment of forest residues availability in a region



Monitoring Laboratory

- Wood fuel quality (Calorimeter PARR 6200EF):
 - calorific value
 - ash content
 - water content
- Monitoring of emissions:
 - dust content (Gravimat SHC502)
 - CO, NOx, CnHn content (Testo 350)
- Supporting equipment (balances, oven, etc.)



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Training

- Training abroad (completed)
 - ◆ Biomass production (Finland, Austria)
 - ◆ Boilers and CHP production and operation (Austria, Czech Republic, Sweden)
 - ◆ Study tour for decision makers to Sweden (biomass production, boiler houses and CHP operation, policy of biomass energy support)
- Local training (ongoing)
 - ◆ Utility service companies' specialists in each oblast of Belarus (6 training sessions)
 - ◆ Local authorities and decision makers



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Expected CO₂ emissions reduction
due to project activities:

***1.08 million tons of CO₂
over 15 years period***



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