



MAJANDUS- JA
KOMMUNIKATSIOONI-
MINISTEERIUM

Strategies and plans for the Ida-Virumaa Region, Estonia

Ando Leppiman

Deputy Secretary General for Energy

Ministry of Economic Affairs and Communications

12.07.2018

Ida-Viru county, Estonia at glance



- Ida-Viru County is one of 15 counties of Estonia. It is the most north-eastern part of the country
- Narva river marks the north-eastern border of Estonia with Russia
- Ida-Viru County is a former industrial center with rich natural resources that have suffered from post-Soviet economic decline.
- The county contains large deposits of oil shale - the main mineral mined in Estonia. As oil shale is used in thermal power plants and oil industry, the earth in Ida-Viru contains most of Estonia's energy resources
- In January 2016 Ida-Viru County had a population of 146,506 – constituting 12.6% of the total population in Estonia, which makes it the third largest county in Estonia
- As a result of mass migration from the Soviet Union, the ethnic origin is largely changed. As of 2017, 73.1% of the population were Russians, 18.9% were Estonians, 2.3% were Ukrainians, 2.1% were Belarusians and 0.9% were Finns
- Unemployment rate in Ida-Viru County is 2 times higher than in rest of Estonia, around 10%. Unemployed currently 6000 people
- Direct employment in oil shale industry is currently around 5800 people. Indirectly around 20 000 (logistics, services, etc.)
- There have been gradual decline of more than 500 persons annually in oil shale sector due to the efficiency increase in mining sector, as well as restructuring of electricity and oil industries

Ida-Virumaa development plan 2015-2020



MAJANDUS- JA
KOMMUNIKATSIOONI-
MINISTERIUM



- General target to transform Ida-Virumaa county to the area with high-productive economy and diverse living environment, that has good reputation and is well integrated with rest of Estonia
- Concrete action plan with liabilities (government sector + subsidiaries), milestones and budget
- Some indicators:
 - Rise in entrepreneurial activity, reaching levels close to Estonia's average (base level: In 2013 - 40,4 companies with a statistical profile per 1000 people, National average 85,4). Goal is to make the economic environment more attractive to larger investors and small businesses
 - People Under the age of 35 in Ida-Viru county by the year 2020 outnumber the population forecast of 2014 conducted by Bureau of Statistics (projected nr of people between ages of 0-34 by 2020: 46 294)
 - Ida-Virumaa county employment rate reaches a minimum of 90% of national average (base level: 88,9% in 2013)
 - The share of population feeling unsafe has decreased (base level: In 2013, national average of 31% vs 35%, Eastern prefect)

Energy and climate policy of Estonia



- National Development Plan of the Energy Sector until 2030
 - Ensuring availability of the energy supply to the consumers at a reasonable price and effort and at an acceptable environmental condition, while observing the terms and conditions established in the long-term energy and climate policy of the European Union
 - Energy intensity of Estonian economy decreases from current 5.6 MWh/1,000 €GDP₂₀₁₂ to 2 MWh/1,000 €GDP₂₀₁₂
 - Fuel and electricity markets operate in a free, unsubsidised and open manner
 - Estonia achieves energy independence by 2030 (vs. the dependence rate of 8% in 2016)
 - In 2030, renewable energy accounts for at least 50% of final energy consumption
 - Sectors included in the EU emissions trading system (ETS) have to deliver a reduction of 43% in emissions compared to 2005
- General Principles of Climate Policy until 2050
 - The long-term target of Estonia is to reduce the emission of greenhouse gases by 2050 by 80% in comparison with the emission levels of 1990
 - As the country moves towards this target, emissions will be reduced by about 70% by 2030 and by 72% by 2040 in comparison with the 1990 emission levels
 - In the use of oil shale, the industry will move towards enhancing energetic value and the production of products with higher additional value
 - The retort gas produced as a by-product to shale oil production will be used to produce energy and heat

WEC energy policy index

ESTONIA



MAJANDUS- JA
KOMMUNIKATSIOONI-
MINISTERIUM

TRILEMMA INDEX RANKINGS AND BALANCE SCORE

RANK

38

SCORE

ABD



	2015	2016	2017	Trend	Score
Overall rank and balance score	44	40	38	▶	ABD
Energy performance					
🔒 Energy security	27	22	22	▶	A
🔌 Energy equity	53	50	42	▶	B
🌿 Environmental sustainability	107	111	108	▶	D
Contextual performance	18	20	18	▶	

KEY METRICS

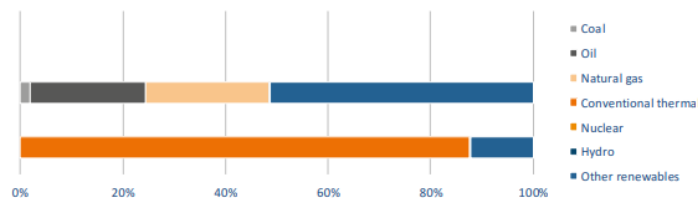
Industrial sector (% of GDP)	27.4	GDP per capita, PPP US\$ (GDP Group)	29,365 (II)
Energy intensity (koe per US\$)	0.10	Diversity of international energy suppliers	Low (HHI = 3,609)
Population with access to electricity (%)	100	Access to clean cooking in rural urban areas (%)	70 96
Household electricity prices (US\$/kWh)	0.15	Rate of transmission and distribution losses (%)	8.6
CO ₂ intensity (kCO ₂ per US\$)	0.65	GHG emission growth rate 2000 – 2013 (%)	2.1

ENERGY PROFILE

Fossil fuel reserves: 0 Mtoe

Total primary energy supply composition

Diversity of electricity generation



Oil shale sector reform



MAJANDUS- JA
KOMMUNIKATSIOONI-
MINISTERIUM



- Limit to the annual oil shale extraction of 20 million tonnes remains in force
- The analysis of the long-term scenarios of electricity generation indicates a gradual decrease of competitiveness of oil shale electricity based on direct combustion
- The projected increase in the volume of shale oil production
- Introduction of floating national extraction charges for oil shale in correlation of market prices of energy products
- In case of successful implementation of the plans of shale oil producers, retort gas and oil shale semi-coke produced as by-products of oil production can be used to generate more than 5 TWh of electricity per year and the marginal cost of that electricity would be competitive in the regional electricity market of the EU
- Retort gas and oil shale semi-coke are already successfully used for electricity and/or heat generation in the industrial oil shale complexes of Ida-Viru county
- According to projections oil shale reform has an impact of:
 - improve the efficiency of oil shale resource use to more than 75%
 - reduce the average CO₂ intensity of the electricity generation portfolio to 400-450 g/kWh (the corresponding indicator was 890 g/kWh, including total network losses, in 2012)



MAJANDUS- JA
KOMMUNIKATSIOONI-
MINISTEERIUM

Thank you!