

Baltic Energy Technology Scenarios

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Nordic Energy Research

Knowledge-creation
supporting energy and
climate targets in the Nordics

What we do

- We are the platform for cooperative energy research and policy development under the **Nordic Council of Ministers** – the intergovernmental body between Denmark, Finland, Iceland, Norway and Sweden.
- We fund R&D to promote a sustainable future
- We contribute to policy-making



What is the Nordic Council of Ministers?

- Forum for inter-governmental co-operation
- Denmark, Finland, Iceland, Norway, Sweden, Faroe Islands, Greenland and the Åland Islands
- Nordic ministers of specific policy meet in the council of ministers 1-5 times a year
- Promotes Nordic and regional interests and values in a globalised world



1	United States	16 768 050
2	China	9 181 204
3	Japan	4 898 532
4	Germany	3 730 261
5	France	2 806 432
6	United Kingdom	2 678 455
7	Brazil	2 243 854
8	Italy	2 149 485
9	Russian Federation	2 096 774
10	India	1 937 797
11	Canada	1 838 964
12	Nordic region	1 721 389
13	Australia	1 531 282



Nordic Energy Research

- Strategy
2018-2021



Nordic Energy
Research

Vision

The Nordics as a
global leader in
smart energy

Mission

Progress through
collaboration

Nordic Energy Research

- Strategy
2018-2021



Nordic Energy
Research

Tools for Nordic Collaboration

- Outreach in the Nordics
- Exchange of young researchers
- Meta Studies
- **Nordic-Baltic collaboration**
- Stakeholder co-financing
- Cross-disciplinary research
- Closer collaboration

The Baltic- Nordic Energy Research programme

Goal: To promote energy research and analysis in the Baltic States and inspire intra-Baltic and Baltic-Nordic collaboration.

Nordic Energy Research; The Ministry of Economic Affairs and Communications, Estonia; The Ministry of Economics, Latvia; and The Ministry of Energy, Lithuania are discussing the possibility of launching a four year long, **600 000€/year collaborative energy research programme.**

This goal will be translated into three central Actions:

1. The promotion of intra-Baltic and Baltic- Nordic research projects with participation of Baltic researchers
2. A Baltic- Nordic PhD collaboration
3. Exchange of energy researchers between the Baltic and Nordic countries

Baltic Energy Technology Scenarios

Liepaja, Latvia.



What we wanted to do:

- Produce a coherent analysis of the energy system in all three Baltic countries
- Build on the experiences from the Nordic Energy Technology Perspectives 2016 (NETP)
- Give input to the Baltic states integrated national energy and climate plans
- Find research areas for more Baltic-Nordic cooperation



Download at <http://www.nordicenergy.org/project/nordic-energy-technology-perspectives/>

Baltic Energy Technology Scenarios 2018

What we did in BENTE:

We have examined how the Baltic countries can:

- Achieve their energy- and climate targets
- Enhance energy security
- Maintain affordable prices

Tools:

- different scenarios
- cost effectiveness

Started 20th of April 2017.
Published in April 2018.



Ea Energy Analyses



TALLINN UNIVERSITY OF
TECHNOLOGY



FIZIKĀLĀS ENERĢĒTIKAS INSTITŪTS
INSTITUTE OF PHYSICAL ENERGETICS



LIETUVOS
ENERGETIKOS
INSTITUTAS



RIGA TECHNICAL
UNIVERSITY



Preview of key BENTE findings:

- GHG reductions should be led by the **electricity and district heating** sectors.
- The Baltic countries could achieve proposed renewable energy targets using **domestic resources**.
- Electricity **consumption is projected to increase**.
- **Renewable energy** is becoming the **cheapest** option for new electricity generation.

Baltic Energy Technology Scenarios

Read more at:
[www.nordicenergy.org/
project/bente/](http://www.nordicenergy.org/project/bente/)

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The estimated additional energy system net costs of the Baltic Policies Scenario(BPO) and 2 Degree Scenario (2DS) are reasonably small. The additional costs compared to the 4DS range from 0% to 0.3% of GDP in 2030 and from 0.1% to 0.5% in 2050. The BPO results in higher additional costs at 2030 than the 2DS.

Dig into the details

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We at Nordic Energy Research would like to give you the opportunity to "dig into the details". To make this possible, we have made a site where you can get the input- and output data from the scenario analysis.

Please, enjoy the details from the heat load-curve, run of river profiles or the Estonian total primary energy demand in 2040, **at this site**.



Get in touch

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Comments and questions are welcome and should be addressed to:

Download the report:

Download input and output data:

General input data of demographics; sectoral input data for transport, buildings, industry, and agriculture; potential of biomass and fossil fuels; Effort Sharing sector targets; and CO2 prices.

Electricity and district heat demand, load profiles, and production capacity; electricity transmission capacity; and assumptions for hydro, wind, and solar.

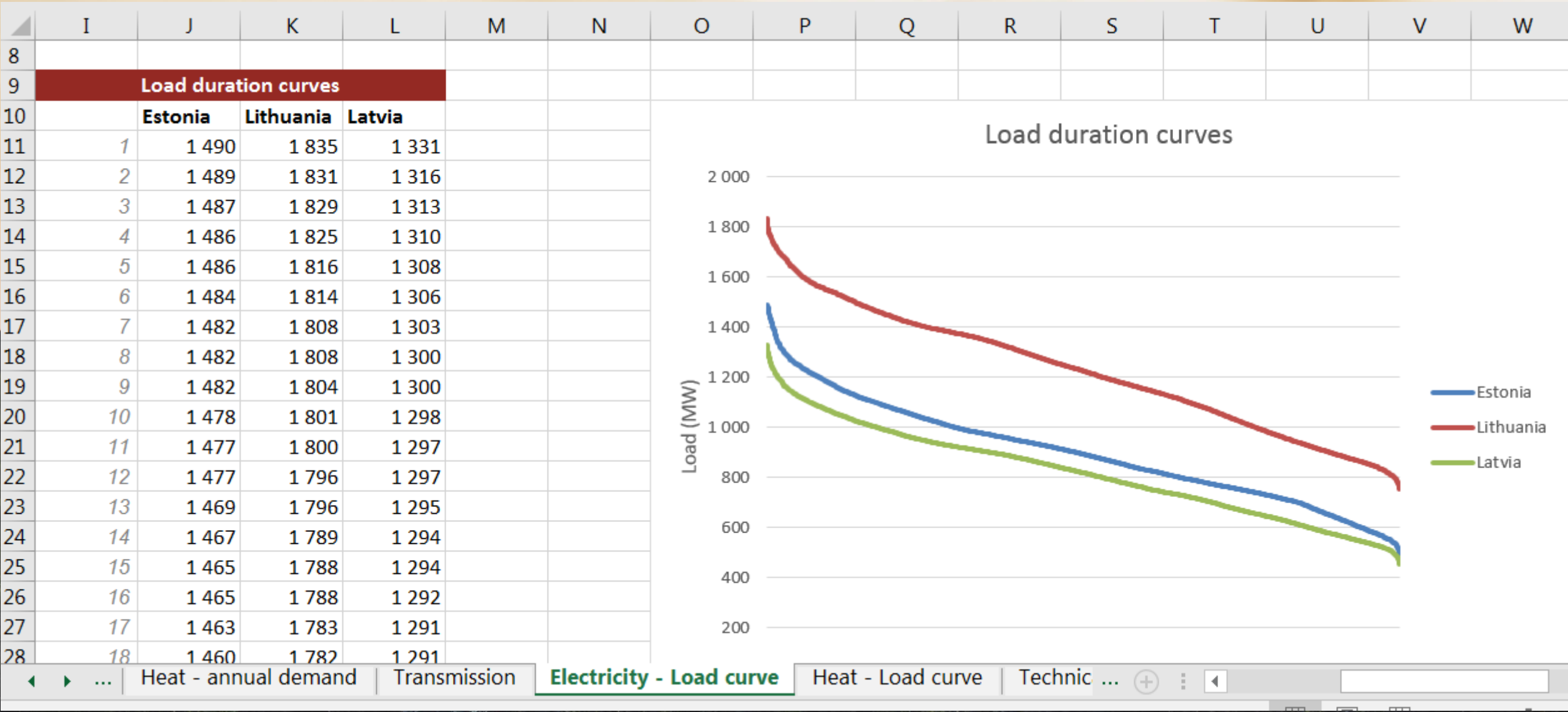
Overall scenario results including total primary energy supply, sectoral final energy consumption, and emissions

More detailed results for power and district heating including capacities, fuel inputs, production, and emissions.

[Download the BENTE input data as .xlsx](#)

duration curves

with profiles from 7013. The profile is scaled to match the annual demand in the selected day.



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