Summaries

EDITOR IN CHIEF'S COLUMN

Who Might Offer Light?

MART RAUDSAAR
Editor-in-Chief of Riigikogu Toimetised

The new issue of "Riigikogu Toimetised" speaks of where we should get our electrical energy in the future. With the help of Statistics Estonia and Vahur Koorits, we get an overview of the pattern of energy consumption in Estonia. Andres Mäe offers a glimpse into the field of energy security.

In his essay, Toomas Vaimann, Senior Researcher at Tallinn University of Technology, gives an indication of what our options are. Professor Alari Konist writes about the prospects for oil shale energy. Andres Noodla, who has been working for Eesti Gaas for a long time, studies to what extent wind and solar energy might replace oil shale energy. Or maybe nuclear energy should replace it? Kalev Kallemets from Fermi Energia Ltd gives an overview of the progress of the potential development of a nuclear power station in Estonia.

We also take a quick look at the green transition. Jelena Rootamm-Valter and Tatjana Miroshkina from Narva College of the University of Tartu write about what the green transition might mean within the context of Ida-Viru county. Two other smaller interesting articles on related topics conclude the focus block: Urmas Kukk from KPMG weighs the legal implications of a potential separation of Elektrilevi and Eesti Energia, and Kaspar Oja from Eesti Pank writes about the electricity exchange.

In the political thought section, we publish two speeches President of Latvia Egils Levits has made at the opening sittings of the Latvian parliament. The speeches were translated by Estonian-Latvian translator Hannes Korjus.

The National Audit Office has studied how energy efficient our buildings are, and Andres Võrk and Helen Poltimäe from the University of Tartu look at how the introduction of the universal service changed the electricity consumption of private consumers.

However, as always, we also publish articles on other topics than the focus topic. Kristen Jalakas and Simona Ferraro look at the impact of family allowances on the gender pay gap. Eneli Kindsiko discusses the problem of the future of the teaching profession and Anni Kurmiste from Praxis discusses the labour problem in long-term care.

We publish the first part of the Master's thesis by Martin Õunapuu which he defended in the Estonian Academy of Security Sciences. It scrutinises the information influence activities by the Chinese in general and more specifically in the Republic of Estonia.

Public relations manager Ott Lumi gives an overview of the recent parliamentary elections. On a related topic, Raoul Lättemäe from the Ministry of Finance has

analysed the election promises of political parties.

As is usual, this issue of Riigikogu Toimetised is concluded by an overview of international parliamentary news compiled by Tiina Tammiksalu from the National Library of Estonia.

Happy reading!

CONVERSATION CIRCLE

Energy Debate or Dark Nights

RIIGIKOGU TOIMETISED PANEL DISCUSSION

The issue of energy has become a global discussion topic over the past year due to the electricity price increase and will probably remain so for some time to come. How should we hold our energy debate so that we could end up with a right and good decision? Jevgeni Ossinovski (Social Democratic Party), Andres Metsoja (Isamaa), Annely Akkermann (Reform Party), Lauri Laats (Centre Party) and Rain Epler (Estonian Conservative People's Party) discussed this topic in the discussion panel of Riigikogu Toimetised on 19 April.

ANNELY AKKERMANN: The question is what our energy portfolio is like. A nuclear power station would be too large for Estonia, in my opinion. For me, this issue was no longer on the table when the Baltic countries were unable to begin to develop a nuclear power station together. The smallest nuclear power station might have been of an adequate size for the consumption of [all] Baltic states.

Ecologists have calculated that the technology at the disposal of humanity today is able to burn the global natural resources to such an extent that, in just one generation, it can make the planet uninhabitable for the mass of people inhabiting it today. We will have to learn to use the energy sources that are everlasting in terms of humankind's lifetime. Wind is constant and will blow forever and will move turbines and the sun will shine forever. Hydrogen technology and storage technologies are developing very quickly. Vast amounts of research funds and human resources are currently being contributed to storage technologies.

JEVGENI OSSINOVSKI: It is important that the discussion should have a fixed framework. To my mind the best framework is the energy system trilemma. It is a triangle where environmental friendliness is at one end, supply security is at the second end and price is at the third end. These choices are all essentially political. Not in a party-political sense but in the sense of social debate.

Speaking of science, on one side there is practical science of how to build up a generating installation which generates electricity if you add fuel into it. Second, there is the climate policy framework. People must understand that all generation of electricity has a footprint. When we speak of a transition to distributed generation and a transition to fuel-free renewable energy, we begin to see more the footprint of our electricity generation. We will see all fundamental discussions: if one likes wind turbines or one does not, how far from homes they are built, etc.

As regards a nuclear power station, I would say that Germany's decision to close down its stations was a bad decision. However, this does not automatically mean that the countries where there is no capability to establish nuclear power stations today should have to start establishing them. I do not support the establishment of a nuclear power station in Estonia. It makes perfect sense that Finland and Sweden and many other countries continue to operate nuclear power stations in the future as well. They have got the skills and infrastructure needed for this.

A provision in the Renewable Energy Directive sets out that electricity generated from forest is renewable energy at the moment of combustion. If we take it out, emissions trading system quota will also

have to be paid when we burn wood. If we changed this, things would fall into place.

RAIN EPLER: We should listen to scientists more but to my mind the framework has been set somehow politically and ideologically in Europe, in the world and in Estonia as well. I agree that, in a longer perspective, we will stop generating energy from oil shale sooner or later. However, at present it seems that there is great enthusiasm to stop it too early.

Wind and solar energy do not come without an environmental footprint either. Turbine energy may seem clean, but both the generation of capacities and their subsequent utilisation are connected with a considerable footprint. We are not told how we should reconstruct our networks when we transfer to renewable energy. Network investments to build offshore wind turbines in the Gulf of Riga will amount to hundreds of millions in my opinion. However, if the location of a nuclear power station should preferably be somewhere in North East Estonia, the need for network investment will be significantly smaller.

Speaking of wind turbines, repowering is a problem because, in financial terms, the support schemes and the whole political framework are creating a situation where it is more profitable to take the turbine down after five years and to replace it with a more powerful one.

If we cut down woods and make pellets, we get to keep the emissions. Estonia could initiate an amendment so that the emissions calculation would be transferred to the place of consumption. We should try to at least look at the situation with Estonia's interests in mind. The current situation is that Estonia earns itself a "bad boy" reputation as regards emissions when we speak of pellets, but Germany produces green BMW-s, figuratively speaking, by burning that same wood.

ANDRES METSOJA: Estonia has been relatively innovative in the energy sector. The Constitution of Estonia says that resources must be used sustainably. I think that it is a fundamental decision point how we use this resource sustainably. When we speak about oil shale resource, wind energy, peat, and wood, this should be viewed integrally together, and we should stand up for our positions in Europe as well.

Another particularly important nuance next to resource use is the thematic of security. We inevitably have to stand up for controllable energy and I think that the issue of nuclear energy should also be cleared up.

Not just a specific way to generate energy but all this energy mix and eventually the price at which we are able to sell electricity to the consumers constitute an overriding public interest. There are indeed a large number of components here. When we speak of storage technology and hydrogen then I am not ruling any of them out although by the look of it you might say they are terribly expensive and unreasonable. I think that it is indeed necessary to map different ways of generating electrical energy, to rank them according to priority and eventually to also look at transmission costs.

If we must reconstruct our energy network, then it will come at a price if we set a parallel ambition to build new wind energy capacity in an immeasurable amount in the Gulf of Riga so that half of it will go to export. If on the other hand we say that we wish to build a nuclear power station, the energy network cost will be unreasonably high. Therefore, choices must be made because otherwise we may well be innovative and do all kinds of things, but no one will be able to pay for it.

Lauri Laats: I think that the decision adopted this February that by 2030 the electricity consumed in Estonia might be generated through green energy is a right decision and that is where we should be moving to. Yes, there are very many different aspects and nuances and obstacles on this path. So far little attention has

been paid to biogas. Estonia needs biogas. The less we depend on the external market the better. It is possible to obtain biogas through well-organised waste handling. We immediately consume basically everything that is generated biologically. The amount is three per cent, which means that there is actually plenty of market.

LAURI LAATS: How to avoid over-politicization of the topic? Throughout history we have seen different decisions. Sweden also closed down its nuclear power stations and later restored them. We will not be able to afford that. We are in a moment where we must make a firm choice and once we make it there will be no turning back. We are not so wealthy a country.

I agree with Annely in that, when we speak about nuclear energy, we should view the Baltic states in unity. Should a joint decision be made, it will definitely have to be taken forward. The most important question in the whole thing is how to ensure controllable capacity. Storage, that is, the issue of batteries has already been explored. To my mind they will not take us very far given the metals that current battery solutions need, and the mineral resources needed to produce them.

The system has other technical problems as well. In addition, we must take into account that we will need considerable capacities in the short term. The blocks of Narva Power Plants are not everlasting. We will have to generate considerable additional installed capacity. The question is whether it will be generated on account of offshore wind farms or the sun. There will probably have to be some kind of combined solution. In any case we are facing the question of how to ensure controllable capacity.

While last year was a total anomaly in terms of the electricity price, this year the situation is beginning to stabilise, and we are really seeing the moments where electricity is very cheap or comes at a reasonable price. The question is into whose hands we play the market – will it be the large actors or will we give smaller ones a chance. The state in its turn must think very seriously about how we can support the sector. If Estonia is able to generate 300 MW of electrical energy in the current sunny weather, then it is thanks to subsidies that either have been used up by now or were put in place maybe two years ago. New solar farms get no subsidies.

TARMO TAMM (Estonia 200): The Estonian energy policy needs quick decisions.

For the energy transition to succeed, our people will have to support this transition or at least understand why it is difficult and complicated for a while. If we ignore this fact citizens will become discontent.

In the energy sector, it makes sense to rely on sun, wind, and biogas. We can solve energy storage with hydrogen, pumped-storage hydroelectric power stations and batteries. In the future it will be possible to produce batteries by using lignin, which is produced from wood and as is known, wood is a renewable natural resource. In addition to other things, this is particularly useful to Estonia as a country rich in woods.

It is very sensible to use wood waste in combined heat and power plants. For that, it will be necessary to have combined heat and power plants distributed all over Estonia and opportunities for them to connect to the power grid. The same opportunity will also have to be created for small solar and wind farms.

Nuclear energy will probably be a reasonable way to generate energy in the future. At the same time, it will not be reasonable to build a nuclear power station in Estonia. The nearest nuclear power station is 80 kilometres away from us in Finland and it is a large station. Large is always more efficient than small, therefore it is unlikely that our small station that does not even exist yet would be competitive in export.

FOCUS

Quo Vadis, Estonian Energy Sector?

Toomas Vaimann
Senior Researcher, Department of Electrical Power Engineering and Mechatronics, Tallinn University of Technology
Member of Estonian Young Academy of Sciences

Estonia's energy sector is at a stage where we are facing a number of choices and challenges that require quick decisions, but it is also important to keep the focus on long-term strategies and targets.

The Estonian energy sector has historically been dependent on fossil fuel, especially oil shale. In today's world, their share is clearly declining.

The target set by the Energy Sector Organisation Act to cover the country's electricity consumption with renewable energy production by 2030 requires storage capacity, managed generation and consumption management.

Production of renewable energy is fluctuating over time and requires efficient energy storage and management systems to ensure a steady energy supply. Besides that, it is necessary to strengthen the energy grid and create smart grid solutions.

Our energy security is also important, as dependence on imported energy can create vulnerabilities and security risks. Estonia should use its natural resources, knowledge and innovation potential to achieve a sustainable and environmentally friendly energy sector. It is important to involve communities and citizens in making changes in energy consumption.

Social Preconditions and Scenarios of Green Transition

ANNELA ANGER-KRAAVI
Senior Research Associate, Cambridge Institute for Sustainability Leadership (CISL)

It is high time Estonia understood that the climate crisis is a global problem and not a local debate that can be used to serve your own interests.

How and why is it a global problem? Carbon dioxide molecules are distributed evenly around the globe regardless from which chimney or car tailpipe they were released into the air. The number of such molecules has increased by one and a half times compared to 150 years ago when we began to use coal to produce energy.

Therefore, it comes as a surprise that, before the elections, local climate debates were held on topics such as "Who decides what will happen to our climate?" The climate system does not know anything of national borders and therefore no one is deciding in Estonia what will happen to our climate.

If we fail to understand who is affected by the green transition policy and how and what to do with the consequences, we will find ourselves in a situation where we will be facing two crises – the global climate crisis and a sunken economy and increasing poverty in Estonia.

Big countries have understood that a transition to a climate-friendly economy must focus on people. "No one is left behind" is one of the underlying principles of this process, and they are speaking about a fair transition. Changes must be made in such a way that people would retain their jobs, incomes, and personal dignity. It is necessary to have a well-thought-through plan and strategy. Politics should be built up on science that has been evaluated in terms of reliability.

Estonian Energy Sector Still Has the Face of Oil Shale

Vahur Koorits
Communications Partner of Statistics Estonia

Oil shale from Virumaa has dominated the Estonian energy sector for more than 60 years, or the entire period for which Statistics Estonia has data. Oil shale production peaked in 1980 and reached its lowest level in 1999, after which mining increased again, but it has not reached Soviet-era level any more.

After oil shale, the production of peat and firewood shared the second and the third place.

Wind and hydropower, which at that time mainly meant hydroelectric power generation on dammed rivers, were produced on a very modest scale until 1970. In the last two decades of the Soviet period, however, there was no hydro or wind power production in Estonia.

The Soviet Estonian economic model was very energy-intensive and wasteful. Energy production and consumption in Estonia after regaining independence fell significantly due to the economic crisis of the early 1990s. The capitalist economic model that started to develop after that did not need so much energy. Oil shale continued to be the most important primary energy source in Estonia after restoration of independence, but the amount of oil shale mined fell.

According to Statistics Estonia, power plants produced 7359 gigawatt-hours (GWh) of electricity and 4717 GWh of heat in 2021. The amount of electricity produced from oil shale increased by more than 60% over the year, accounting for almost half (49%) of the total electricity produced. In 2020, electricity produced from oil shale accounted for 40% of total electricity produced.

Challenges of Energy Sector in the Next Decade

ANDRES MÄE
Energy Expert

When Moscow launched a full-scale war against Ukraine on 24 February 2022, European countries were not ready to quickly give up importing oil and its products, as well as natural gas, from Russia.

It took almost a year to replace Russian oil and its products. A substitute for natural gas was immediately available in the form of LNG, but unlike oil, imports of natural gas from Russia have not been restricted by sanctions so far.

Besides that, it is necessary to take into account climate policy, i.e. the decision of developed countries to reduce their dependence on fossil fuels.

The author of the article showed that replacing fossil fuels in transport with electrical energy increases the latter's consumption by at least two times in Estonia and as much as by three times in Latvia and Lithuania.

The production of the technology components, rare earths and semiconductor equipment needed for increasing the renewable energy production is even more concentrated than in the case of oil, and China is a major actor in this field.

The Western countries need international agreements and cooperation with African and South American countries.

Interconnected and functioning energy markets also reduce vulnerability. Having secure energy interconnections and supply channels is essential for the Baltic economies. The energy sector needs well-considered policy decisions to cope with the geopolitical and climate policy impacts.

Oil Shale Energy Has a Future

Prof. ALAR KONIST
TalTech, Head of Department of Energy Technology

I am neither a politician nor an entrepreneur, but I am a qualified engineer and a professor. Moreover, I hold one of the eight technology professorships formed in the public interests in Tallinn University of Technology, the Professorship of Oil Shale Technology. And speaking as a scientist, I would like to see Estonia consider and assess new approaches to using oil shale in our energy sector. Why?

Whether we view the issue from the perspective of Estonia's energy security, achieving climate goals, or circular economy, oil shale energy has its place. Particularly if we appreciate the energy security and price guarantee that oil shale offers. As an added bonus, we can produce materials and chemicals with the environmental impact that we find acceptable. This would allow us to refrain from opening new quarries, thus reducing our ecological footprint. What's more, by using state-of-the-art technologies to capture CO_2, we could in certain circumstances achieve negative CO_2 emissions. Estonia should contribute to the research and development of CCUS technologies. Not only would this drive technological progress forward but it would also create opportunities for us to sell our knowledge and technology to third countries, who have declared that they would continue using fossil fuels until 2060, if not beyond.

How Much Can Wind and Solar Power Replace Oil Shale Electricity?

ANDRES NOODLA, PhD
Energy Expert

The Resolution of the Riigikogu that 100% of the grid electricity and 65% of all energy consumed in Estonia will be generated from renewable sources by 2030 cannot realistically be met. The notion of renewable energy covers two contradictory sources of energy. Combustion-free wind-solar power is pollution-free and free of charge. In 2021, it accounted for 2.1% of energy consumption. However, under the name of biomass, combustive fuels from agriculture, food and forest wood residues accounted for 92% of renewable energy, and in this, burning of wood formed 93%.

The growth can be achieved with wind-solar electricity, and in order to reach 65%, the production has to increase by 18 times.

Wind power 3500 MW (currently 300 MW) would cover the consumption of grid electricity during 30% of the hours per year.

1500 MW solar farms would cover the hourly consumption during 9.3% of hours. The development of solar energy is generation for own use.

In order to ensure supply security, it is still necessary to have 1500 MW peak load controlled generation operating in an uneconomic fluctuating mode. In some hours, there is a wind-solar power overgeneration, but this would cover less than half of the missing grid electricity through storage.

The increase in capacity will bring lower prices and the profitability of investment is not guaranteed. Significant changes to electricity market regulation are needed.

The solution would be a permanent premium on non-combustion electricity to ensure a return on investment when electricity prices are low. If the price rises

above the limit, the subsidy would be reduced.

The production, consumption and saving of electricity and heat energy cannot be regulated through a common notion of energy. The nature, consumption and saving of electricity and heat energy are essentially contradictory. Each sector needs its own regulation.

Development of Nuclear Energy and Our Challenges

Kalev Kallemets, PhD
Fermi Energia, Chairman of the Board, co-founder

The European Union has set a course towards achieving climate-neutrality by 2050. In 2022, nuclear energy was the dominant type of power generation in Europe. What have been the developments in nuclear energy in the world and what are we doing in Estonia? What are the fears regarding nuclear energy and what are the major advantages of this type of energy?

The International Atomic Energy Agency (IAEA) exercises global supervision over the use and development of nuclear energy in order to support the benefits of nuclear energy to humanity as well as to manage its risks smartly. IAEA has adopted safety principles and standards which all countries and parties must follow and that is what we are doing in Estonia as well.

Low CO_2 emissions are the main reason why countries with existing nuclear power stations are making investments in order to keep using these stations for decades to come. This is also the main reason why many well-known environmental protection activists have begun to support nuclear energy, and in many countries public opinion is clearly supporting more extensive use of nuclear energy.

The greatest challenge for nuclear energy was, is and will be its complexity and exceptional nature for ordinary people. For Estonia as a Nordic country, nuclear energy is important in order to ensure that the 1000 MW in generation capacity required by the transmission system operator is without carbon emissions and at a stable price, and to offer serious alternative employment in the energy sector in Viru County when the oil shale industry fades.

Green Transition as Viewed by Entrepreneurs in Ida-Viru County

JELENA ROOTAMM-VALTER, PhD
Narva College of the University of Tartu, Lecturer
TATJANA MIROSHKINA MSc
Narva College of the University of Tartu, student

Ida-Viru County has a major role to play in achieving Estonia's green transition goals. As part of the Green Transition in Communities project funded by the University of Tartu, Narva College studied the attitude of entrepreneurs in Ida-Viru County towards the green transition. The study was carried out in cooperation with the Ida-Viru Entreperenurship Centre (Ida-Virumaa Ettevõtluskeskus, IVEK).

The quantitative survey carried out in Autumn 2022 showed that around 1.5% of nearly 8,000 businesses and organisations in the IVEK data base took an active interest in the green transition. Out of the 120 businesses that responded to the survey, 57% described the impact of the green transition on their business activities as strong or very strong. At the same time, only 6% of the respondents believed that the goals set by the Estonian government for transitioning to renewable energy would be met in full by 2035. 21% of the entrepreneurs considered their knowledge of the field sufficient.

What entrepreneurs in Ida-Viru County

need the most today to make the green transition a success is better awareness and focused investments into research and technology.

Is It Feasible to Separate the Distribution Network from Eesti Energia and Connect it to the Transmission Network?

RAUL NUGIS
Head of Data & Analytics at KPMG Baltics
URMAS KUKK
Attorney-at-Law at KPMG Law

In May 2022, KPMG and Finantsakadeemia were given the task of dealing with the issue further, including forecasting the financial and economic impacts of this option on the relevant businesses, as well as examining the related legislative-regulatory background.

As a result of the analysis, it was concluded that there are no obstacles arising from the Commercial Code or the Competition Act to the separation of the distribution network from Eesti Energia AS, connecting the distribution network with the transmission network and the separation of the system operator from Elering AS. However, the Electricity Market Act in its current wording may constitute an obstacle.

The analysis also revealed that the terminology of the Electricity Market Act, Regulation (EU) 2019/943 and Directive (EU) 2019/944 is not mutually consistent.

Common terminology is important for different reasons. If everyone has a common understanding of concepts and terms, the risk of confusion and misunderstanding is reduced.

A common terminology helps avoid legal uncertainty, errors of interpretation and disputes that can arise when different words are used in legislation to express the same meaning. This is essential for ensuring legal clarity and precision, effective implementation of legislation and avoiding legal disputes.

Electricity Stock Market Price and Inflation

KASPAR OJA
Bank of Estonia, Economist

The sudden hike in the price of electricity in 2021 and 2022 caused a stir in Estonia and made electricity a key issue in discussions on economic policy. Although the general public has tended to blame the Nord Pool power exchange for the increased price of electricity, the root causes are elsewhere, being largely linked to the weaponisation of natural gas. The key factor that has affected energy supply as well as the stock market price over the recent years has been the price of gas. This is based on the fact that the bulk of the so-called manageable capacity is produced in gas-fired power plants.

The price of gas rose steeply in autumn 2021, when tensions between Russia and the West gathered strength. Thus, the price of gas in Europe reacted to news about a "refugee crisis" on the border between Belarus and the European Union. However, the price of gas truly skyrocketed when Russia presented its demands to NATO countries in December 2021. Reducing the EU's dependency on Russian gas has led to a drop in gas prices, although the price has still remained above the 2021 level.

Although Estonia is not particularly dependent on natural gas, it does have a significant effect on prices in Estonia, because gas is not used only in power generation, but it also provides an important input in heating and chemical industry.

POLITICS

Speeches by President of the Republic of Latvia Egils Levits at the Opening of the 2020 and 2022 Autumn Sessions of the Saeima

As a central theme of the 2020 speech, the President highlighted the word "sustainability". Sustainability means being aware of values and passing them on to future generations.

Sustainable and stable development of Latvia was also the aim of the Administrative Reform Act passed by the Saeima during its spring session.

The President of Latvia believes that the sustainability of the nation requires a targeted population and family policy focused on specific, verifiable results, where he pointed to Estonia as an example.

Another topical line of work is the e-governance, its functioning in the processes of state governance. For this, too, it is necessary to create a cross-sectoral policy, governance and legal basis.

External and internal security must be a priority for Latvia also in the future, and European green transition, the transfer to a climate-neutral economic model, is a challenge that will require the government to play an ever more active role and to involve the whole public.

In his 2022 speech, Egils Levits emphasised that Latvia and the world were at the beginning of a totally new era. It means new economy, where new skills are required and which is based on renewable resources, digitalisation and innovation. He thanked the 13th composition of the Parliament for the decisions that clean the country of the remnants of Soviet colonialism.

STUDIES

Making Buildings Energy-Efficient May Be Hindered by Lack of Funds

SILVER JAKOBSON
National Audit Office of Estonia, Audit Manager of sustainable development, infrastructure, energy, and environment

Estonia's ambitious plan to renovate buildings to be more energy efficient could have a significant effect because buildings account for the largest share of the final energy consumption (approx. 50%), including households with 22%. Renovation can help save an average of up to 50% of a building's heating energy. However, there is a great risk that the plans will be hampered by lack of funds – the total cost of renovating all buildings that need a complete overhaul in the period 2021–2030 has increased to an estimated 7.5 billion euro because of rising construction prices. About 45% of this, more than 3 billion euro, would need to be covered by financial support from the state but, in the period 2021–2027, a little over 650 million euro will be granted to support the activities improving the energy efficiency of buildings.

The pace of renovating apartment buildings with the support of the state has been about 100 buildings per year, but the number required is about 466 buildings per year, and the pace of renovating detached houses is also about four times slower than desired. Central government buildings have also not been renovated in the planned volume in 2019–2022. The renovation of local government buildings receives minimal support, and there are no state incentives for the renovation of non-residential buildings in the private sector.

Impact of Universal Service to Electricity Consumption in Households

ANDRES VÕRK
University of Tartu, Analyst
HELEN POLTIMÄE
University of Tartu, lecturer

Introduction of the universal service into the Estonian electricity market in autumn 2022 led to a dramatic reduction in the price of electricity for many households which had previously kept an eye on stock market prices.

We determined that the weekly energy consumption increased by nearly three percent upon transition to the universal service. On weekdays and weekend evenings, consumption increased by more than one tenth, while it decreased during the nights, particularly over the weekend.

This implies that the universal service led to a short-lived increase in consumption, particularly during peak hours. This in turn means a higher burden on the power grid, which demands additional investments to ensure power supply during peak loads.

Our analysis used Eesti Energia's data on household consumers from March 2021 until the end of October 2022. If the household's electricity package exceeded the price of the universal service, Eesti Energia transferred the consumers automatically to the universal service as of 1 October 2022. The price of the universal service was 19.24 cents per kWh for the consumer.

The analysis showed that after the introduction of the universal service, those household consumers who replaced the stock exchange package with the universal service increased their consumption the most in October 2022 compared to 2021, particularly during peak periods. Those household consumers who kept their fixed package or moved from the fixed package to the universal service, adjusted their consumption behaviour less in 2022 compared to 2021.

Impact of Family Benefits on Gender Pay Gap

SIMONA FERRARO
Taltech, Department of Economics and Finance, Senior Lecturer
KRISTEN JALAKAS
European Parliament, Data Analyst

The purpose of this research is to shed light on how family policy affects the gender wage gap in Estonia. To date, empirical studies have not assessed the role of parenthood in Estonia, the European country with the most generous parental policy but the largest gender wage gap. The gender pay gap is caused by the cumulative effect of many factors over a woman's life, including the difference in treatment in the labour market in comparison to her male counterparts. The motherhood penalty is estimated using the Estonian Labour Force Survey (2009-2019), the Oaxaca-Blinder decomposition method, and Unconditional Quantile Regression. The findings highlight a motherhood penalty of nearly 14% and a fatherhood premium of 4%, with both outcomes contributing to the widening of the gender wage gap. The results also show that the motherhood gap is greater at the bottom of the wage distribution. Our findings should spark further debate about gender equality, reintegrating mothers into the labour force, and providing fathers with non-transferable parental leave.

Megatrends Shape the Future of Teaching Profession

ENELI KINDSIKO
Foresight Centre, Expert

The scarcity of new teachers entering the profession, as well as the shortage of supportive specialists which further exacerbates this, has set the Estonian schools a drastic challenge. Firstly, what are the expectations to the school as a working environment. In today's schools, we see five generations of teachers working side by side, and school directors need to offer a motivating working environment to all of them. Secondly, the declining birth rate has particularly hit schools in rural areas – we need new educational models because of the insufficient numbers of students and teachers. Thirdly, students have changed, as has the society – more children have been diagnosed with special needs, and yet teachers are not trained to deal with these. This means that we need to change the training for future teachers. Fourthly, the field of education has been revolutionised by technology. For example, ChatGDP forces us to redefine the skill requirements of future teachers. What should be taught in future schools in the first place? What will the future school be like?

Why Labour Shortage in Long-term Care Should Be a Greater Priority

ANNI KURMISTE
PRAXIS Center for Policy Studies, Health Policy Analyst

An increasingly person-centred and needs-based approach is expected in long-term care sector, which will also require more staff. In the future, the demand for workers providing long-term care services will grow, but the sector has an unattractive reputation, low wages and poor working conditions. Besides that, stress and high workloads make it difficult to keep people in the sector, as people with the necessary skills are not prepared to work under the existing conditions.

A survey found that the raising of wages, valuing of employees and supporting the taking into use of technological tools are the most important measures that, according to experts, need to be reviewed and renewed. The most important changes needed in the long-term care workforce relate to policy decisions. It is necessary to recognise at the national level that long-term care requires additional funding. In conclusion, it is important that all the proposed solutions work hand in hand and complement each other. The long-term care labour shortage needs a strategic and comprehensive approach, where different measures should complement each other. However, it is important to give the issue a higher political priority.

Information Influence Activity of the People's Republic of China and Its Impact on the Security of the Republic of Estonia

MARTIN ÕUNAPUU
Estonian Rescue Board, Northern Regional Rescue Service, Safety Surveillance Department, Inspector

The growing influence of the People's Republic of China in the world over the past decades and its aspiration to become a global leader are increasingly prompting Western countries to ask questions about the growing threats and potential threats from China.

Estonia, too, cannot afford to remain

indifferent to the growth of China's global influence and activity. China's aim is to impose its worldview and standards globally in order to achieve an international environment that suits it. China has become significantly more visible in the global economy and has never before been so active in foreign policy.

China is trying to use foreign investment as a tool to steer the policies of other countries in its favour. In doing so, China often uses the so-called soft power policy.

China has also presented to the world a common goal of the Chinese, the Chinese Dream, which is part of China's peaceful and harmonious rise. The new Silk Road of the 21st century is also an example of a positive inclusion policy. The author of the article says that the new Silk Road could be a Trojan horse.

China is also making skilful use of information warfare, and continues to create and maintain alliances at the same time, because information warfare does not look like war.

On the other hand, the People's Republic of China is beginning to shift from sneaky tactics to forceful moves to increase its global influence. From NATO's point of view, China wants to control key technological and industrial sectors, critical infrastructure, strategic materials and supply chains. Economic experts predict that, within the next decade, China's economy will reach a level that is equal to the sum of the US and EU economies.

Looking further into the future, it is not impossible that we will return to a time of wars over natural resources.

The nature of warfare has not changed. Technological tools offer new opportunities for creative barbarians.

NATO must be able to avoid polarisations within the organisation. The purpose of the daily work of NATO Headquarters and the International Staff in Brussels is to reach mutually satisfactory compromises between the 31 member states in hundreds and thousands of documents.

VARIA

What Will the Near Future of NATO Bring?

Master Sergeant Rome KUUSIK, NATO Multinational Corps Northeast (MNC NE)
Lieutenant Colonel Toomas VÄLI, NATO Multinational Corps Northeast (MNC NE)

Russia's aggression against Ukraine has disrupted the order of international relations that developed after the Second World War. For the first time since 1945, an open conventional war is once again raging in Europe.

Regardless of the outcome of the ongoing war in Ukraine, return to the situation before the war is unlikely. Russia's ambitions are no longer the concern of only the countries of NATO's eastern flank. NATO has to ask what else Russia is capable of.

2023 PARLIAMENTARY ELECTIONS IN ESTONIA

2023 Parliamentary Elections in Estonia from Three Angles

OTT LUMI
Public Affairs Special Advisor, Meta Advisory

The author of this article views Estonia's politics from three angles – he is a former politician and member of the Riigikogu (Parliament), as well as a lobbyist and the guest lecturer of political science at Tallinn University. He holds PHD in political science. The article strives to give a historical overview of the main conflicts of different elections in Estonia and tries to elaborate on the peculiarities of the last election campaign. The main focus highlighted by the author is that the Reform Party was once again the political party who was able to define the

main theme of the elections in the eyes of society. The current Prime Minister was able to shift the focus from internal politics to foreign politics. Paradoxically, campaigning during the war in Ukraine suited mostly the Reform Party's interests, as they were able to dominate the agenda in the field of foreign policy. Ott Lumi also predicts some of the crucial crossroads of the upcoming election term – whether the Centre Party will be able to sustain its monolithic status, whether far right Estonian Conservative People's Party (EKRE) will become even more radicalised, if the government coalition formed after the elections will be stable, and fourthly, what is the destiny of the political landscape of Ida-Virumaa.

Quantitative Text Analysis of the Election Promises of Political Parties Before the Riigikogu Elections

RAOUL LÄTTEMÄE
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The election programmes of political parties are voluminous, and many promises are made before elections. The author of the article investigated which words appeared most often in the election programmes, and in which contexts.

"Estonia" was by far the most often used word, it was used nearly 900 times. The election programmes spoke most of all about Estonia, the country and the state and how the respective party supports or guarantees something. Also about people, about increasing something, about children, opportunities, local governments, cooperation, businesses, and development, importance, necessity, raising, etc.

The word "Estonia" appeared more than average with the words world, self-confidence, high-quality, country for children, enter, happily, language, economy. The word "support" was also popular, but it was impossible to bring out a list of associations, as the word was used in a very wide range of contexts.

The most popular topics were firstly related to schools, education and teachers' salaries, secondly to national defence capabilities and the third topic was a mixture of Estonian language and integration, also in connection with Ukrainian children.