

# MVM NEXT BUSINESS NEWS



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## ELECTRICITY MARKET NEWS

**Forward market:**

We could witness a further significant hike in prices in the futures market in October 2022, which was mainly attributable to the continuing decrease in the price of natural gas. During the examined period the Hungarian benchmark product for 2023 was traded in the range of

395–480 EUR/MWh. The trend continued in October following the price levels of the baseload product in September. The Hungarian 2023 benchmark price closed the month at 420.86 EUR/MWh while the German annual product for 2023 was traded at 373.15 EUR/MWh. The difference between the

two closing prices kept changing and averaged at 33.26 EUR/MWh during the month.

The decrease was significant not only in the case of annual products but it also affected the other products of the forward curve. The drop was still induced by falling gas prices; however, market risks could also get lower thanks to the fact that the filling

level of European gas storage facilities is extremely high and that we could expect much milder than average weather until mid-November. The fact the operation of the last 3 German nuclear power plants was prolonged until 15<sup>th</sup> April 2023 also reduced the supply shortage. Of the regional risks, the hydrological situation worsened significantly from the second half of the month, due to which the difference between Hungarian and German prices may increase in the coming period.

The Hungarian baseload product for November fell from 373.79 EUR/MWh to 211.28 EUR/MWh during the month and the December price dropped from 433.4 EUR/MWh to 294.73 EUR/MWh. A declining price movement was seen throughout the month.

EUA's determining Dec-22 contract closed October at 79.97

EUR/t, which means an increase of 13.24 EUR/t or 19.8% on a monthly basis. The downward trend was broken by positive news from the regulators at the end of September and after the sideways movement that characterised most of October the rate rose by 18% without any serious fundamental impact within a week due to breaking through technical resistances and covering short positions.

As for the expectations, it seems very likely that the European energy crisis can be solved by reducing and replacing natural gas consumption, which can only be achieved rapidly as the consequence of a serious decline in the performance of the industry and processing.

**Spot market:**

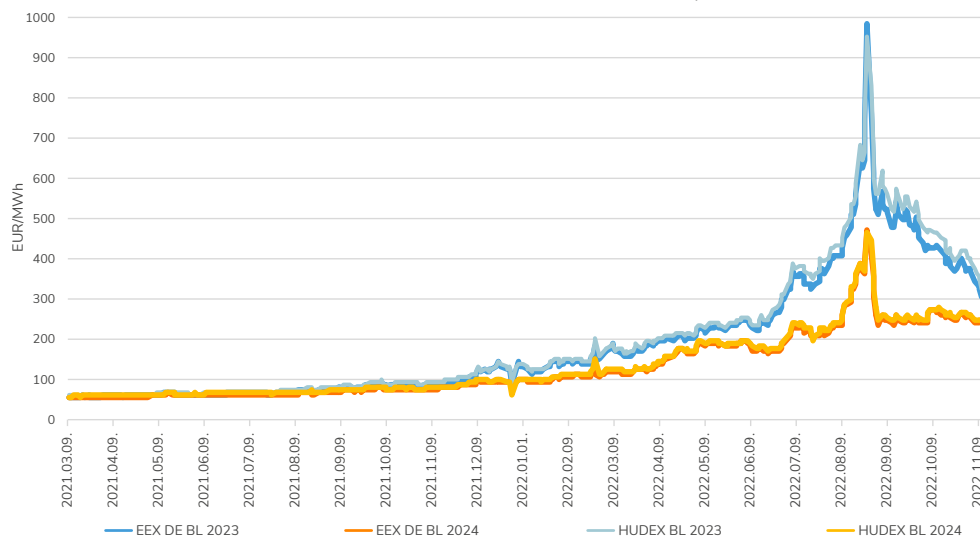
In October 2022 prices fell without exception on the Europe-

an day-ahead electricity markets compared to the previous month. The price of the German EPEX cord product decreased by EUR 197.30 to EUR 194.04/MWh on a monthly basis, and the monthly average price of HUPX decreased by EUR 193.46 to EUR 152.65/MWh from September to October.

Apart from the increased nuclear and lignite production, it was thanks to the higher-than-average production of solar power plants and the restrained consumption that Hungary became a net exporter in the hours around noon in two-thirds of the days in October. According to the scheduled data, Hungary's net import fell by 0.5 GWh/h to 0.9 GWh/h from September to October, which has not occurred for years. Although our imports from Austria and Slovakia increased considerably

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HUDEX/EEX DE YR-23 and YR-24 baseload products



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compared to September, the amount we exported to the southern countries grew remarkably; furthermore, the flow direction at the Hungarian-Romanian border sections was reversed compared to the previous month and we turned from net importers into net exporters.

In the Western European region and in the Central-Eastern European areas the average daily temperature exceeded the usual value by 2.9 °C and 2.5 °C, respectively, during the month. Thanks to the extremely mild weather and the adaptation forced by extreme market prices, consumption was significantly lower throughout Europe than in the same period of last year and, in the case of several countries, also lower than the normal value, pushing down the prices of day-ahead markets. The fa-

vourable weather had affected the electricity markets not only on the demand side, but also through lowering gas prices and the production of solar power plants.

Compared to September, the system load in Hungary increased only minimally to 4,490 MWh/h (+9 MWh/h, +0.2%) in October. However, it stayed 43 MWh/h below the seasonal norm, while it was significantly lower (by 403 MWh/h) compared to the same period of the previous year, which means a decrease of roughly 9% compared to the previous year. The main cause of the decreasing consumption is that the business sector and the population keep adapting to the drastically rising energy prices while the sharp drop in real income and, to a lesser extent, the impact of the temperature also hold back consumption.

The total Hungarian electricity production increased by 0.6 GWh/h to 3.6 GWh/h from September to October. After its annual maintenance starting from 6<sup>th</sup> August, Block 1 of Paks Nuclear Power Plant (480 MW) returned to the system at full capacity on 9<sup>th</sup> October so domestic nuclear production increased by 0.4 GWh/h to 1.8 GWh/h compared to September. The operation of Mátra Power Plant also proved to be more stable than in the previous months and delivered almost fifty percent more than the September volume in October. Although the production of solar power plants fell back by almost 10% on a monthly basis to 0.5 GWh/h, the sunny and cloudless weather meant that the amount they produced was 17% higher than the seasonal norm.

The water flow of the Danube exceeded the usual season-

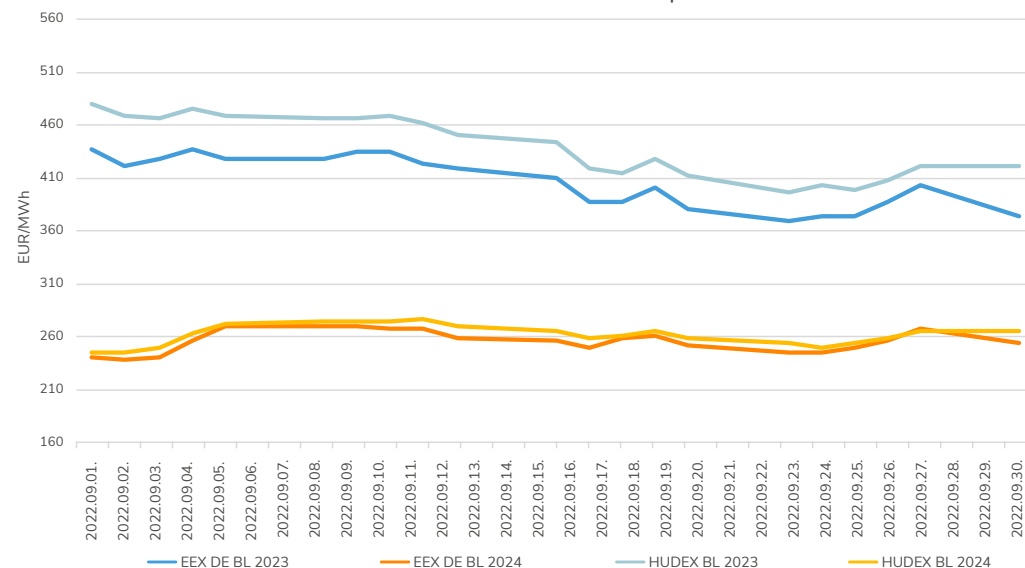
al levels in the first half of the month and around 10<sup>th</sup> October it was 45% higher than the seasonal norm. However, a much less rainy period followed then, which caused a continuous decrease in water flow until the end of the month. By that time

it was 38% below the long-term average water yield, which also significantly limited the production of run-of-river power plants in the Balkan region.

As for the expectations, no significant rainfall is foreseen until

the end of the forecast interval (until 20<sup>th</sup> November) so the hydrological situation in the Balkans is not likely to improve significantly. Due to the prolonged colder weather conditions, this may increase market prices in the region.

HUDEX/EEX DE YR-23 and YR-24 baseload products / October 2022



## OIL, NATURAL GAS AND FOREIGN EXCHANGE MARKET NEWS AND EVENTS

The oil market showed uncertainty in October. The North American West Texas Intermediate (WTI) started October at the rate of 83.63 USD/barrel with the quoted price fluctuating between 82 and 92 throughout the month and the course closed the month at

86.53 in the USA. The North Sea Brent quotation, determining in Europe, followed a similar course: it started the month at 88.86 USD/barrel, took the roller coaster fluctuating between 88 and 98, and reached the level of 94.83 USD/barrel by the end of the month. High

inflation, rising interest rates, the strict quarantine strategy of the Chinese economy due to Covid, and global fears of recession all result in a decrease in demand for the black raw material.

Therefore, the Organisation of the Petroleum Exporting Countries (OPEC) reduced the level of global demand for

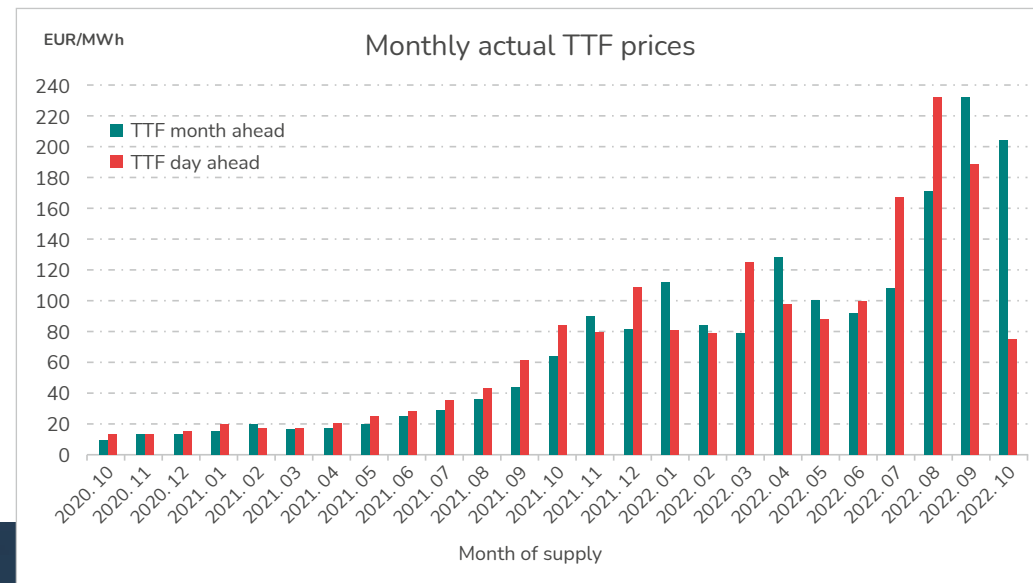
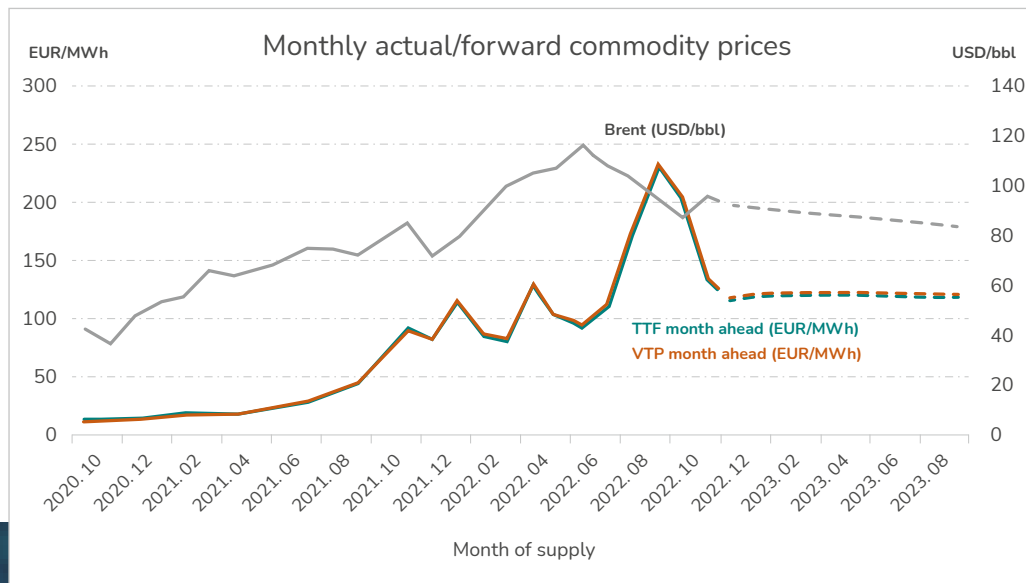
both this year and next year by 100,000 barrels per day in its latest report. According to the oil cartel, the resolution of the geopolitical situation in Eastern Europe (the Russian-Ukrainian war) could positively impact inflation, which might also enable less strict monetary policy. It is interesting news that China and India have become the largest users of Russian crude

oil since the start of the war in Ukraine but Chinese oil refineries have significantly reduced the amount of Russian oil they purchased by December. This is partly because the economy of the world's largest oil importer is facing serious difficulties. The purchase price also fell significantly as the Chinese bought oil at a premium of \$1.7 to \$1.9 per barrel added to the

February ICE Brent rate, a significant decrease from the \$2.7 premium two weeks ago.

A brutal fall occurred in the European natural gas markets in October. On the leading Dutch TTF market, the day-ahead quotation price of natural gas had fallen from 126.5 EUR/MWh in early October to

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29.35 EUR/MWh by the end of the month. The price of the product for next month's delivery had also decreased, but not nearly as significantly, as the rate fell from 168.5 at the beginning of the month to 80 EUR/MWh. The price decrease can be put down to the combined effect of several factors. On the one hand, European

gas storage facilities are almost completely filled up. Due to the unusually warm weather in October, the purchase planned for heating purposes was postponed throughout Europe. The lost Russian natural gas volumes could be obtained from other sources by increasing Norwegian production, rescheduling the shut-down of Dutch production,

and LNG imports (because of which ships waiting to be unloaded were congested off the coast of Spain). The combination of these factors resulted in such a disruption of the supply and demand balance that it pushed prices back to last year's levels. However, it would be a mistake to count our chickens yet because the cold weather expected for

the second half of winter will significantly increase the demand for natural gas. The natural gas market report of the Hungarian Energy and Public Utilities Regulatory Authority for September shows that the adaptation of demand to high natural gas prices has accelerated in Hungary as domestic natural gas consumption in September (4.4 TWh) means a decrease of 9% compared to the previous year, after the daily average consumption fell significantly compared to the previous four-year period and peak day consumption (197 GWh) has been the lowest value since 2016.

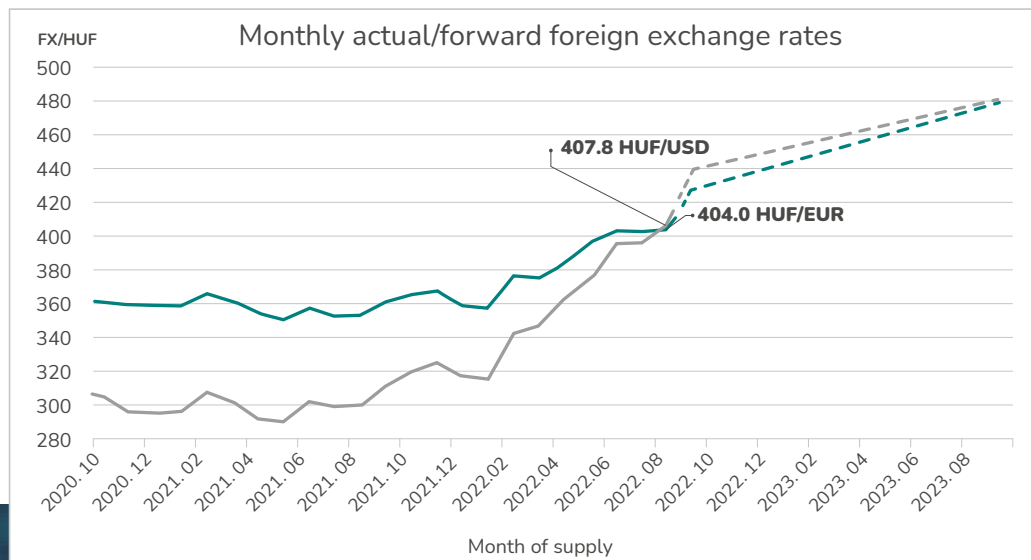
Total madness characterised the market of the forint in October. The forint stood at 417.64 against the euro at the beginning of October, from where it weakened to the historic low of

430.82 by 12<sup>th</sup> October to take a turn and end the month at 408.24. Against the dollar, the forint weakened from 425.72 at the beginning of October to 444.7 on the dark day of 12<sup>th</sup> October and the exchange rate was 413.94 at the end of October. Unfortunately, the economic situation is not improving. Inflation in October jumped to 21.1% according to the data of the National Statistical Office, due to which the Hungarian National Bank further lifted the base interest rate to 13%.

The growth of the Hungarian economy has been clearly slowing since the beginning of June. Although industrial production expanded in August, production of the construction industry did not change on an annual basis. The annual growth of retail turnover has

been slowing since spring. The labour market remains tight with a low unemployment rate. The faltering economic boom and the effect of high energy prices increasingly lead to the general deterioration of mood indicators.

The trend of the dollar against the euro seemed to reverse in October: from the level of 0.9824 early in the month, the exchange rate of the American currency strengthened to the level of 0.97 on 10<sup>th</sup> October. From there, it returned to 0.9883 again by the end of the month and rates above 1 could be seen again in early November. Both market prices and statements by decision-makers point to further interest rate hikes in the case of the Federal Reserve, acting as the American central bank, and the European Central Bank.



## MVM ZRT. MANAGEMENT TRANSFORMS TO REACT NEW CHALLENGES

**The unpredictability of the European and global markets and the extreme fluctuation of prices have brought about a completely new situation amidst the energy crisis, creating long-unseen economic and energy challenges.**

Adapting to the changed situation, the senior management of MVM Zrt. has reorganised with effect from 1<sup>st</sup> November 2022. MVM Group still considers it highly important to guar-

antee the security of supply of Hungary under all circumstances.

The names and competences of the new senior managers can be read

Chairman-CEO **Dr Gábor Czepek** was appointed Secretary-of-State for public administration as of 1<sup>st</sup> December 2022.

Until the new CEO is appointed, the deputy CEOs of MVM Zrt. will manage the areas reporting them under the same conditions.



## MVM GROUP TAKES ANOTHER STEP TO MAINTAIN ITS LONG-TERM FINANCIAL STABILITY

**Amidst the current energy crisis, MVM Group keeps doing its best to guarantee the security of supply through maintaining its financial stability despite the unpredictability and extreme fluctuations of the European and global markets.**

In order to achieve this goal, MVM Zrt. and ICBC Austria signed a medium-term credit line agreement of 250 million euros for general corporate financing purposes on 14<sup>th</sup> October.

ICBC is another important international partner in the already wide and diversified financing portfolio of MVM Zrt. Based on its asset portfolio and market capitalisation, ICBC is the largest financial institution of China and of the world with outstanding competencies in both the industrial and commercial sectors, thus it fits well among the financing partners of MVM Group.

“The newly signed financing agreement contributes to the further expansion of

the resources required for Hungary’s secure energy supply and enables MVM Group to further strengthen its financial stability while it also supports the confidence of the credit markets in the long-term prospects of MVM Group,” said **László Fazekas**, Deputy Chief Financial Officer of MVM Zrt.



## MVM GROUP TO DEVELOP ITS ELECTRICITY NETWORK IN THE VALUE OF TENS OF BILLIONS OF FORINTS

**MVM Démász Áramhálózati Kft. and MVM Émász Áramhálózati Kft., the two electricity network distributor licensees of MVM Group, are developing their networks in the total value of HUF 70 billion. The investment is realised through 50% support from the Recovery and Resilience Facility (RRF) of the European Union and the Government.**

The consortium managed by MVM Démász Áramhálózati Kft. receives HUF 23.266 billion whereas the consortium managed by MVM Émász Áramhálózati Kft. receives HUF 12.151 billion in the form of non-refundable support.

The development projects became necessary because weather-dependent renewables-based electricity production has increased significantly in Europe and thus in Hungary in recent years, which primarily includes production by solar panels in Hungary. The increase in the number and capacity of solar power plants

connected to the grid necessitates the simultaneous and coordinated development of the other elements of the electricity value chain.

As part of the investments, substantial developments and installations of 132/22 kV will be implemented in the towns of Jászfényszaru, Gyöngyöshalász, Hatvan, Jászberény, Mezőkövesd, Miskolc, Szeged-Fehértó and Soltvadkert, while there will be high-voltage network developments and installations along the network sections between Lőrinci-Nagykátá, Nagykátá-Jászberény, Lőrinci-Nagy-

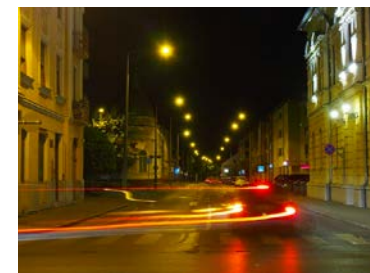
bátöny, Felsőzsolca–Encs, Gödöllő–Hatvan, Gödöllő–Lőrinci, Hatvan–Lőrinci and Csongrád–Szentés. Besides, development projects of medium-voltage networks, low-voltage networks and digital developments will also take place in the territories of the two distribution networks. As a result of the above developments, the volume of

the generation capacities of new solar power plants that can be admitted in the grid will increase by at least 456 MW and 238 MW in the territories of MVM Démász Áramhálózati Kft. and MVM Émász Áramhálózati Kft., respectively, by spring 2026. Thus the projects will contribute to achieving Hungary's energy policy and climate policy goals.



## MVM GROUP ACQUIRES A MAJORITY STAKE IN LIGHTING COMPANY

**MVM Optimum Zrt. has signed an agreement to acquire a 60 percent share in Sysco-Lux Kft., a company active in lighting modernisation.**



After the transaction is closed, the two companies will be able to jointly develop their services. The acquisition of the holding in the company is in line with the energy service development strategy of MVM Group. By acquiring the share, the group expands its energy efficiency portfolio while Sysco-Lux can count on stable ownership. Budapest-based Sysco-Lux is one of Hungary's most dy-

namically growing lighting companies of domestic ownership, which provides a full range of lighting services in the private, public and municipal sectors alike. It is committed to using energy-saving, environmentally friendly and high-quality lighting equipment, as well as the construction of modern and safe lighting systems.

According to its latest report, it closed both 2020 and 2021 with a turnover over HUF 700 million and a profit of more than HUF 60 million. Foreign sales contributed to almost HUF 30 million in its sales revenue two years ago and more than HUF 40 million last year.



## TRAINING DEVELOPMENT AND RESEARCH COOPERATION BETWEEN CORVINUS AND MVM

**By combining the academic knowledge of Corvinus University and the business experiences of MVM companies, the two organisations primarily aim at increasing the standard of education and research in Hungary, particularly in the fields of innovation and business development.**

In mid-October Corvinus University of Budapest and MVM Zrt. concluded a cooperation agreement. The document was signed by **Benedek Fluck**, Chief Human Resources and Services Officer, and **Katalin Gál**, the CEO's Governmental Advisor, on behalf of MVM Zrt., and **Dr Réka Franciska Vas**, Vice President Education, and **Dr Lajos György Szabó**, General Vice President, on behalf of the University.

Thanks to the cooperation, MVM Group provides professional support for the training courses of Corvinus University of Budapest: its employees participate in the development

of training materials tailored to corporate needs, assist with the background tasks of training as experts, provide the opportunity of consultation for the preparation of theses and TDK (Students' Scientific Association) entries while they share their professional experience with the university's students as guest lecturers and by organising plant visits and offering professional internships.

Corvinus undertakes to cooperate in the identification of the trainee candidates most adequate for MVM Group, contribute to the professional training of MVM employees, as well as carry out research and meth-

odological developments in the topics required by the company. The university and MVM endeavour to organise common professional and training programmes and publish joint professional publications. In addition, MVM is given the opportunity to attend the events

of the university's Students' Unions.

The agreement is for an indefinite period and the cooperation drawn up in it extend to the fields of innovation and business development in particular.



*Benedek Fluck, Katalin Gál, Dr Réka Franciska Vas, Dr Lajos György Szabó*

## APPLICATIONS ARE OPEN FOR MVM'S 2023 EDISON STARTUP COMPETITION

**Applications of teams and enterprises are invited in two categories until 31<sup>st</sup> January 2023.**



In cooperation with its incubator company, MVM Start Future Lab Zrt., MVM Group announces MVM Edison Startup Competition for the seventh time, for which applications are invited in two categories as in previous years: idea phase and scale-up phase.

The mission of MVM Edison Startup Competition is to identify and embrace the innovations of the future. They are

looking for ideas and already operative startups that offer solutions to existing problems, while making the daily lives of users easier and making the operation of the energy sector more efficient. The popularity of the competition is evidenced by the fact that participants submitted 686 applications, 70 teams received mentoring and 22 teams won valuable prizes in 6 years.

If you know someone who may be interested in the competition, we appreciate if you draw their attention to it. As an appetiser, the summary of last year's finals can be viewed here. Further information and application on the website at [mvmmedison.hu](https://mvmmedison.hu).



## MVM SUPPORTS CONTROLLING COMPETITION

**Budapest University of Economics holds its National Controlling Case-Study Competition in November-December 2022, where accounting and controlling knowledge also receives high attention in addition to strategic, financial and management knowledge.**

The professional tournament is organised by Lámfalussy Sándor Special College. The purpose of founding the special college, formed in 2010, was

to facilitate students to obtain more profound knowledge in the scientific and practical fields of their chosen professions. MVM has been following

the operation of both the university and the special college with interest and has supported the case-study competition organised since 2012 as a sponsor for years. Through the cooperation, MVM supports the training and professional development of the future generation of the controlling discipline, as well as the selection and progress of talents.

Further information: <https://uni-bge.hu/hu/lamfalussy>



## MVM FUTURE TALKS 2022

**At the third MVM Future Talks talk show the best known Hungarian and foreign experts once again discussed the future of technological development and its effects on human kind.**

How are innovations born and how can we ourselves become innovators? From users of technology, can we become its shapers? How does innovation get democratised by the fact that private companies can also develop tomorrow's devices in addition to large public organizations? Is the future in good hands? These are some of the questions the participants of the virtual round

table organised by MVM tried to answer on 10<sup>th</sup> November 10.

As our returning guest, American astrophysicist **Neil deGrasse Tyson** shared his thoughts with the viewers for the third time but **Kevin Kelly**, tech guru and founder of Wired, one of the most important global technology magazines; army officer **Imre Porkoláb**, strategist and expert in guerrilla warfare and anti-terrorist operations; **Ernő Duda Jr.**, founder of Solvo Biotechnology Zrt.; medical physicist and space engineer **Balázs Zábori**; and astronaut **Hayley Arce-neaux**, a member of the Inspiration4 mission of SpaceX, were also present.



## AN EXPERIENCE FOR CHILDREN AND SUPPORT FOR HELPERS

MVM once again organised its Day of Experiences for children who have to cope with more difficulties than their average counterparts.



This year MVM Group organised the event titled “My most beautiful day!” for the fifteenth time. 800 disadvantaged children had the opportunity to gain special experiences and try games while enjoying themselves carelessly. During a press conference held at this event, the company group awarded support in the total amount of 100 million forints to 22 foundations and institutions

involved in the treatment, development, and education of sick, disabled, disadvantaged children and those with social needs.

The Day of Experiences, launched a decade and a half ago, and the connected donations have now become a tradition in the life of MVM, which has distributed one billion forints for the noble cause over the past 15 years. This year,

the employees of the company group could once again cast their votes on the destination of 100 million forints. It was not only the voting that MVM Group employees attended; more than a hundred of them volunteered to help the animators and organise the event.

The 22 selected organisations can use the donation for experiential therapy programmes, the equipment of hospitals, maternity and children’s homes, and supporting relatives.



## BIRD PROTECTION AND PHOTOGRAPHY

On 9<sup>th</sup> November the awards of the Nature Photographer of the Year contest, organised by naturArt, the Association of Hungarian Nature Photographers, were presented at the Hungarian Museum of Nature Sciences, where now the general public can also view the most beautiful works of Hungarian nature photographers. MVM Démász has been committed to support naturArt for years as it regards bird protection as one of its missions. Our electricity network companies strive to serve the protection of birds with the best network technology solutions.



How can we bring these network devices closer to people from the height where only birds roam? With nature photos of unique beauty!

At the natural photography contest of naturArt, the special award of MVM Démász was won by the photograph titled “**Gathering**” by Dr Tibor Jantýik. The award-winning photo depicts the V-crossbar developed by the technologists of MVM Démász especially for bird protection purposes. The advantage of the device is that it does not offer any risky seating points for larger birds thanks to its slanted design while their smaller winged counterparts can safely rest on the through-bar included for static purposes.



## MVM AWARDS TEN YOUNG MUSICIANS AGAIN THIS YEAR

The most outstanding young talents of Hungary's music life could receive the Junior Prima awards in the category of Hungarian music art for the fifteenth time on 22<sup>nd</sup> November.

It is of utmost importance for MVM Group to support young talents, as well as nurture and strengthen cultural values. The Hungarian music art category of the Junior Prima award, created a decade and a half ago, and the recognition given to the artists also serve this purpose. During this time the award has grown into one of the most important prizes related to Hungarian music art. 10 young artists receive it every year, thus a total of 150 outstanding talents have been recognised with the award over the past 15 years. In addition to the professional recognition, MVM supports the ten prize-winning musicians

under the age of thirty with two million forints each.

"The Junior Prima award is among the most prestigious prizes related to Hungarian music art and it means an actual stepping stone for young artists. The award inspires and at the same time provides an enormous support for young talents to fulfil themselves in music. MVM Group has always considered it extremely important to support those who contribute to the spread and promotion of Hungarian culture with their knowledge and talent. That is why we have stood behind the music art category of the Junior Prima award

for fifteen years," said **Dr Edit Juhász**, General and Legal Deputy CEO of MVM Zrt.

The members of the panel of the Junior Prima award are some of the most renowned authorities of Hungarian music and art year after year. This year the chairperson of the panel was one again **Dr Andrea Vigh**, harpist and Rector of Liszt Ferenc Academy of Music. Further members of the committee were saxophonist and composer **Kristóf Bacsó**; pianist **János Balázs**; cultural expert **András Csonka**, program director of the Academy of Music; violinist **László Jakobi**, concert organiser; violinist



Junior Prima  
Díj 2022

MVM

and conductor **András Keller**; opera singer **Éva Marton**; tuba player and composer **Roland Szentpáli**; as well as conductor and violinist **Gábor Takács-Nagy**. It is an honour that the recently deceased pianist and composer **Béla Szakcsi Lakatos** also took part in the selection of the talents.

Based on the panel's decision, the artists who could receive the Junior Prima award in 2022 were clarinetist **Zsombor Eszenyi**, hornist **Éva Lilla Fröschl**, cellist **Péter Domonkos Hartmann**, conductor **Gábor Hontvári**, jazz pianist **Balázs Horváth**, composer **Patrik Oláh**, pianist **Se-**

**bestyén Pellet**, pianist **Ildikó Rozsonits**, organist **Ádám Tabajdi** and opera singer **Natália Tuznik**.

Details on the Junior Prima award, the members of the panel and the award-winning artists can be found at <https://www.mvmjuniorprima.hu>.



Éva Lilla Fröschl, Zsombor Eszenyi, Ádám Tabajdi, Gábor Hontvári, Balázs Horváth, Domonkos Péter Hartmann, Ildikó Rozsonits, Natália Tuznik, Patrik Oláh, Sebestyén Pellet



## NIGHT OF POWER STATIONS 2022

The Night of Power Stations was organised for the third time on 28<sup>th</sup> October. Ten power stations of MVM Group joined the series of events, where visitors had the opportunity to get a glimpse of the operation and backstage secrets of power stations. The places for the announced tours were filled quickly as a huge number of people were curious about our production units around the country.

Exciting programmes were also prepared for those interested at the Visitor Centre and the Museum of Nuclear Energy in Paks: interactive presentations, a show of physics, contents

for VR glasses and augmented reality awaited the visitors. As one of the primary topics of this year's series of events was conscious energy consumption, **Károly Härtlein**, master teacher

at the University of Technology of Budapest, explained how to calculate the energy consumption of household appliances and the related costs, while he also drew attention to some simple steps to be taken to reduce expenses.

In Tiszalök, visitors could get to know Tiszalök Barrage, its surroundings, as well as its design and ecological impact on wildlife.

In Kisköre, visitors were presented Kisköre Hydroelectric Power Plant and its relationship with its surroundings since the construction of Tisza II Barrage to this day. Those interested could take a tour round the power plant and attend a film screening about the general overhaul and modernisation of Kisköre Hydroelectric Power Plant between 2003 and 2006.

**See you again next year at the Night of Power Stations!**

