



vemw

Knowledge center and interest group
for non-domestic energy and water consumers

**Houttuinlaan 12
3447 GM Woerden**

VEMW Annual report 2021

[company]

And subsidiaries (if any)

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PREFACE

Dear reader,

Annual reports generally look backwards. While as a company you mainly want to look ahead, because that is where the opportunities and challenges lie. Rarely have they been greater than at present. The unimaginably turbulent situation in the energy markets demands all your attention. VEMW is fully engaged in this and tries to assist you where possible.

However, we also believe it is important for VEMW to account for our activities in the past year. A lot of work has been done by the employees of the office. But they could only do their job well thanks to the intensive collaboration with your employees in all task and policy groups, sector teams and other work associations of our association. In this report you will find an overview, tailored as much as possible to your company.

The Governing Board met five times in 2021, all times via Teams. In this way, in December we said goodbye to Cornelis Pietersen (Tata Steel), who has been a member and vice-chairman of the board for no less than 10 years. We thank him for his great efforts in recent years. I would also like to thank everyone who contributed to the results in 2021.

I hope you enjoy reading this report!

Gertjan Lankhorst,
chairman

This is how energy works in the Netherlands; insight into the energy system.

Social attention to energy has increased enormously in recent years. Many parties have an opinion about energy policy, but this opinion is not always based on knowledge of the facts. This has led, among other things, to a too one-sided focus on the need for sustainable energy use, at the expense of affordability and reliability.

That is why VEMW, together with a large number of other parties, has made possible the handbook "This is how energy works in the Netherlands". This book brings together accessible, reliable and relevant information about the energy system in one place. The book is mainly intended for the growing group of people who are professionally involved with energy issues without having a background in it. Think of people who work for municipalities, construction companies, media, housing corporations, water boards, installation companies, environmental organizations, transport providers and so on. The book is also very useful in education. A copy of the book is available to VEMW members. It can be picked up at the office in Woerden.

Reading guide

This fourth VEMW Annual Review 2021 has been prepared especially for [company]. It focuses entirely on your company or organisation, including any subsidiaries that are also members of VEMW. We have taken into account energy and/or water-related topics that are relevant to your organization.

In this annual report you can read which subjects VEMW has been working on in 2021 and which benefits the VEMW membership has brought to your [company]. Where possible, we have quantified this in euros, so that we show as concretely as possible what value the membership represents for your organization.

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Where do the icons stand for?

 Cost	 Association	 Gas	 Water	 Advocacy
 Electricity	 Network management	 Climate	 Revenue	 Knowledge center

Introduction

In this annual report you can read about all the developments that concerned us in 2021. And there are quite a few. For example, we have naturally committed ourselves to improving the energy infrastructure and removing obstacles to prevent congestion. In addition, we looked (and look!) at the electricity demand and we are strongly committed to industrial demand management. In our view, this is an important solution for making the industry more sustainable. To this end, I myself participated in the Extra Assignment steering group and the Electrification Roadmap steering group. At the beginning of February, we organized an election meeting at which four parties – CDA, VVD, GroenLinks and the ChristenUnie – were guests. We debated together on energy, water and climate-related topics and that resulted in interesting discussions.

Sustainability

On March 26, 2021, we organized a meeting with a number of other partners about the industry as a flywheel for making society more sustainable. We have shown how this can lead not only to sustainable employment in industry, but also to sustainable effects outside it. Think, for example, of making air traffic more sustainable.

Also in the context of the climate goals, we have written an important position paper on CCS (Carbon Capture and Storage). In addition, through project 6-25, we have continued with innovative energy efficiency options that have not yet been tested. As VEMW, we are involved in the so-called frontrunners consultation, a national consultation with all industry clusters about sustainability, led by VEMW chairman Gertjan Lankhorst.

Gas Protection and Recovery Plan

The gas crisis and the associated Gas Protection and Recovery Plan are now more topical than ever. That 'valve cap' that the Government can turn if the security of gas supply is at stake was high on our agenda in 2021. We have shown that shutting down the industry can have major social consequences. For example, because certain foodstuffs and oxygen for hospitals can no longer be supplied. In addition, switching off gas can also lead to major and even irreparable damage to the factories/companies themselves. We have made clear – in consultation with the ministry – what is and is not possible.

Publicity

In 2021 we received a lot of publicity with VEMW. The press managed to find us about the gas crisis and the lawsuit against Shell and also to be the first to comment on the coalition agreement that VVD, D66, CDA and ChristenUnie announced in December. In addition, we have written and published several opinion articles ourselves. It is nice to see that journalists know where to find us. We gladly seize the opportunities to make our voices heard – on behalf of the members.

Finally, I note that VEMW functioned well in 2021 despite corona. We have organized more meetings than ever (mainly in the form of webinars and meetings via Teams) and they have been well-attended by members. We have been able to continue all our activities and we are very happy with that. In 2022 we will of course continue with this with great enthusiasm!

Hans Grünfeld, director VEMW

The added value of your membership

For the fourth time, we are offering an annual overview tailored to your organization. The annual overview is fully focused on your organization [company] and any subsidiaries. On the basis of the files that have been played in the past year and insofar as possible, we have calculated which benefits or which costs have been avoided for you. We have taken into account the energy and/or water-related topics that are relevant to your organization.

VEMW represents your interests in the Netherlands and Europe in the field of electricity, gas and water. We also represent your position in climate policy and the options for making your organization more sustainable. As a member of our association you can make use of our expertise and information on our website and attend the meetings. We have calculated per discipline what value our efforts have yielded for you in numerous files or which costs you could avoid thanks to our efforts. Below you will find a summary of the calculated results of our efforts for [company] and your contribution for the year 2021. In the report we explain the files and the calculated results.

Your membership fee in 2021 € [CNTR21]

Climate

Achieved for your company: € [RES3_K]

Electricity

Achieved for your company: € [RES3_E]

Gas

Achieved for your company: € [RES3_G]

Water

Achieved for your company: € [RES3_W]

Network, information, knowledge and advice:

Achieved for your company: [RES3_VEMW]

Total value of the membership in 2021: € [Totaal_RES21]

Knowledge, network, information and advice

Introduction

As a representative of interests and through contact with parties and customers involved in energy and water, VEMW has a lot of knowledge and information at its disposal. We unlock it for you. VEMW informs you via the online magazine Insight, the Energy & Water update, the newsletters and via a wide range of meetings, including digital meetings (webinars).

As a member you always have access to the VEMW website, including the members' area with information about policy, regulations, rates, market information and prices. You can also attend meetings, seminars and conferences (with a discount). Every year, VEMW organizes the Energy Purchase Benchmark, which you can participate in for free. You can contact us for all your energy and water-related questions. If we are unable to answer these ourselves, we will help you on your way by recommending other external experts from our knowledge network.

In short, as a member of VEMW you can make use of numerous access options to relevant information and help regarding issues for [company].

Networks

VEMW has a large internal and external network, which we make grateful use of. We organize various meetings where you can usually participate for free and gain valuable knowledge. The meetings provide you with access to various specialists from different fields. We know from experience that members consider their participation in VEMW meetings to be very useful and valuable. Not using it means you are leaving out valuable and relevant information for [company]. We value the importance of the network on [Res2_Netwerk] euros.

Task groups, policy group and working groups

In close consultation with members of VEMW, policy is developed and positions are formulated in the policy and task groups of VEMW. These groups are composed of a broad representation of members of VEMW. We monitor the degree of representation of this composition, facilitate the meetings and meetings and provide the secretary. The members provide the practical knowledge and experience necessary for a well-considered and well-founded position. VEMW provides substantive support in this regard and disseminates its views to the government, regulators of the energy and water sector and other parties involved and the media. We have one policy group, five task groups and three working groups. The working groups work out specific topics and provide a task group with information.

Below is an overview of the different groups that are active within VEMW. A check mark means that [company] is part of that group.

Policy group Water	Taskforce Energy & Climate	
Taskforce Water Quality	Work group Codes Electricity and gas	
Taskforce Water Technology	Work group Gas quality	
Taskforce Electricity	Work group Voltage quality	
Taskforce Gasses		

Sector Teams

The VEMW Sector Teams give members the opportunity to gather information, exchange knowledge and, if desired, delve deeper into specific topics with colleagues from the same sector and/or with similar issues, including the preparation and implementation of joint activities. VEMW has three Sector Teams: the Sector Team Hospitals, TenneT and Multisites. The Sector Teams meetings were organized virtually in 2021. We set the value of the information exchange within Sector Teams at 500 euros.

Meetings, webinars

Due to the ongoing measures regarding Covid-19, we have organized all meetings in 2021 digitally. An additional advantage is that a larger number of interested parties could participate in the webinars than if these meetings would have taken place physically in Woerden. Due to the lack of travel times, webinars are easier for you to attend and organize for VEMW. Webinars have become indispensable and will remain a permanent part of the meetings that VEMW offers you. Whether or not together with third parties, VEMW organized the following webinars for [companySect] in 2021:

Water

- New recipe for water taxes
- Online Water Vision 2021 (VEMW, Evides and Industrielinqs)
- Discharge permit (RWS, VNCI and VEMW)
- Digital water: something for now, or for later? (VEMW and RHDHV)

Energy

- Making industry more sustainable through electrification (in collaboration with NVDE/RVO)
- Information meeting Infrastructure
- The electrification dilemma: chance or uncertainty?
- Industry and Energy Summit (in collaboration with SER, FNV and VNO-NCW)
- Making industry more sustainable through electrification: heat pumps (in collaboration with NVDE/RVO)
- Making industry more sustainable through electrification: electrolyzers (in collaboration with NVDE/RVO)
- Making industry more sustainable through electrification: energy storage (in collaboration with NVDE/RVO/Recoy)
- Energy transition (3 meetings)
- The energy transition: How do you get from ambition to realisation? (in collaboration with RHDHV).
- New data exchange GLDPM
- Nuclear energy
- Making industry more sustainable through electrification: Flexibility
- The energy transition: How do you get from ambition to realization in the region (in collaboration with RVO/FedEC)
- Congestion management

Various

- VEMW Elections debate

A total of 22 meetings were organised. It is important for you and your colleagues to keep abreast of developments in the field of electricity, gas, sustainability and energy saving and water. We believe that we can meet this need through our meetings, among other things.

ANTWOORD_Bijeenkomsten

Inspiration tours (in collaboration with NVDDE and RVO)

Together with RVO and NVDE, VEMW has been successfully organizing the so-called 'Inspiration Tours' for five years in a row. Initially focused on biomass applications and energy saving in industry, since 2020 focused on CO₂ reduction in line with the Climate Agreement. The aim is to inspire you with practical examples and to hear from suppliers and end users how they have realized a project, which bottlenecks and pitfalls they encountered and how they were tackled. Seven tours have been organized in 2021:

- Energy management systems/artificial intelligence
- New business models CO₂ reduction
- Escos
- Energy Innovation and Climate Funds
- Pricing of CO₂ emissions
- CO₂ reduction industry: application of e-boilers
- CO₂ reduction industry: application of industrial heat pumps

All tours and additional information can be found on the website of the Sustainability Industry Program (verduurzamingindustrie.nl). The available information, meetings of VEMW and the inspiration tours are free for you to visit. The opportunity to gain valuable knowledge in this way free of charge makes it extremely interesting for you to make use of this. We value the meetings in total at [RES2_Meetings] euros.

ANTWOORD_Inspiratietours

Basic course Electricity & Gas

Since 2011, VEMW has been organizing the Electricity & Gas Basic Course every year. This course provides a comprehensive overview of all aspects of the production, transport and distribution, trade, supply and consumption of energy and climate-related issues. In addition to technical aspects about connections and networks, sustainability, markets for electricity and gas, pricing and purchasing, the underlying European and Dutch policy, legislation and regulations and supervision are discussed.

The Electricity & Gas Basic course is very suitable for newcomers to the energy world, but also for those who are dealing with energy issues and want to broaden their knowledge about this. We ask for a contribution towards the costs for the course. We estimate the additional value of the knowledge that is made available at 500 euros.

[ANTWOORD_Basiscursus]

VEMW Benchmark Purchasing Energy

Every year you have the opportunity to participate free of charge in the Benchmark Purchasing Energy of VEMW. The benchmark compares the delivery prices, the purchasing and pricing strategy and the sustainability of purchasing over the previous year (2020). Purchasing performance has been compared for more than a hundred branches. The total volume for electricity and gas entered in the benchmark corresponds to almost 7 TWh and 2.3 billion Nm³ (22 million MWh) respectively. By participating annually, it is possible to monitor performance over time. The benchmark offers you a lot of information and options for optimizing your purchasing. We value the possibility of using the benchmark for both the [company]'s electricity and gas purchases at [RES2_Benchmark] euros.

[ANTWOORD_Benchmark]

Website

The VEMW website contains a great deal of information about various current developments in the field of energy, climate and water. You will also find many valuable documents, reports and diagrams. Almost daily we report on relevant issues related to energy, climate and/or water. Over the past two years, various files on the website have been updated and provided with new downloads. There is a private area for members where you can download detailed information and documents. The information that VEMW makes available on the website per file is of value to [company]. We estimate this at [RES2_Website] euros.

VEMW magazine Inzicht, Energy & Water update, newsletters

VEMW publishes the online magazine Inzicht (Insight) four times a year. Inzicht is distributed in a circulation of more than 1700 copies among all members and relations of VEMW. In between the editions of Inzicht, VEMW makes the Energy & Water update available. This is a quarterly electronic publication for members and provides an overview of new and ongoing developments in the field of European and national legislation and regulations. Members also receive our weekly newsletter by e-mail containing an overview of recent developments in the field of energy and water, sustainability and information about VEMW's activities. We estimate the value of the publication of the magazine Inzicht, the Energy & Water updates and the newsletters together at [RES2Comminfo] euros.

Individual support

We advise our members on their issues about energy, sustainability and water. Some issues require further investigation, consultations with colleagues or other experts. VEMW receives requests for support based on e-mails, telephone contacts and visits. In the event that extensive advice has been provided, we value this service at 700 euros per half-day. This service is part of the subscription. In 2021, VEMW provided individual support to 43 members with various issues.

[ANTWOORD_Advies]

Helpdesk

Members can contact VEMW with all energy and water-related questions. We receive weekly questions that our employees deal with. In contrast to individual support, the helpdesk deals with

questions that VEMW can answer on the basis of available knowledge. Answering such questions is part of the membership. We value the availability of the helpdesk at [RES2_Helpdesk] euros.

Eric Picard, Advisor

'Online in contact with you'

'In the past year we have assisted many members with advice. The convenience of virtual conversations certainly contributed to that. The consultation, the sharing and display of documents and the presentation have taken on a whole different dimension. Although there is a lack of body language, the conversations and meetings are mainly efficient. The 'small talk' is still there, but you only drink the cup of coffee. We have taken out a subscription to the Mentimeter program for the meetings. This makes it possible to present questions to the participants that you can answer on your PC or mobile phone. We then show the results to those present in graphs on the screen; a handy tool for taking stock of opinions and having a discussion. All in all, I think that the virtual conversations and meetings make an important contribution to the provision of information and remain a permanent part of the way in which we are in contact with each other.

The annual Energy Purchasing Benchmark of VEMW can certainly be called successful: in 2021 we had more than 100 participants. We cannot fully explain the increase, but this may be because information is much more available digitally due to working from home, making it easier to participate in the benchmark online. Internally we have frequent consultations about the progress and reactions of members in order to be of service to you as quickly as possible. In any case, we are very pleased that this free service has been meeting a need for almost 12 years.

After the summer holidays, VEMW set up the VEMW Wind Consortium in collaboration with a number of members. The aim of this is to give members the opportunity to participate in the purchase of electricity generated by wind turbines in the North Sea. Led by a working group with four experienced members and VEMW, the project started at the end of 2021. In 2022 it will be clear who will win the tender with which a Power Purchase Agreement (PPA) is concluded. If everything goes according to plan, the new Hollandse Kust West wind farm will provide the members of the consortium with sustainably generated power in the year 2025/2026.

I look back on an exciting year with the start of many great projects and, despite the corona crises, in which physical meetings did not take place, a constructive continuation of the informative - online - contacts with our members.'

VEMW: spider in the Climate web

The 2021-2030 Climate Agreement was concluded in June 2019. VEMW has actively contributed to its creation. We took part in the Industry Table, Electricity Table and a number of cross-sectoral tables for system integration, infrastructure and hydrogen. From 2020, the elaboration of the agreement - based on goals and ambition - has picked up steam. VEMW works closely together with other parties in the chain. We have forged new connections and are actively involved in various initiatives that hark back to the climate vision 'Together towards less' that we published in 2016. Jacques van de Worp, senior policy advisor at VEMW: "In 2020 and 2021, VEMW participated in various initiatives, such as Power-to-Industry, Wind-meets-Industry, the Electrification Road Map steering group, the Extra Assignment steering group, the Koplopersoverleg and Project 6 -25. But the Platform for Sustainability Industry (PVI), the industry consultation on the implementation of the SDE++ and on innovation, the ISPT Heat Platform, the Inspiration Tours and the series of webinars about electrification in industry were also part of those initiatives."

Fit for 55

On 21 July 2021, the European Commission published the Fit For 55 package, consisting of 14 documents with a major impact on the European economy. In these plans, the European Commission makes proposals for far-reaching measures to emit 55 percent less CO2 equivalents by 2030 compared to 1990. Changes to the EU ETS, the introduction of the CBAM (Carbon Border Adjustment Mechanism), revision of the tax system in the Energy Taxation Directive and the 50 percent target for renewable fuels of non-biological origin in the RED III have a major impact on the Dutch business community. VEMW has given its members in the task groups and in the Hospital Sector Team access to these documents. We are involved in IFIEC's view on these documents through our European cooperation with interest representatives from other EU member states. Tom Strengers, policy advisor at VEMW: "In addition to the first part of the Fit For 55 package, the hydrogen and decarbonised gas market package was also published in December. Together, these proposals should accelerate the energy transition in Europe, but this must not be at the expense of business. Setting unachievable goals can lead to undesired effects in the market, which will affect the business community. Carbon is a global mass balance, which means that relocation of industry poses a real risk of carbon leakage. That is why VEMW continues to insist in the proposals on achievable targets with sufficient protection for the industry." In addition, VEMW is also discussing the tax exemption for cogeneration with the Ministry of Economic Affairs. Flexibility will become an increasingly important part of the energy system and CHPs can provide it. It must be prevented that necessary parts of the energy system experience unjustified negative incentives.

KVW_TGIid

By supplying information about the Fit For 55 package, end users can better anticipate European policy and assess the consequences of the policy and prepare an adequate response for their business operations. VEMW determines the value of this file by multiplying the time of the number of hours it has put into the file by the hourly rate of a policy advisor and dividing this among the members of the task groups. This results in an amount of [RES2_Fitfor55].

Project 6-25 stimulates the reduction of CO₂-emission (VEMW, FME, RVO, EZK)

In Project 6-25, FME (technology companies, industrial service providers) and VEMW are working together with support from, among others, the Ministry of EZK and RVO. The aim of the project is to increase energy efficiency through the accelerated application of innovative technology (TRL8-9) and thereby substantially reduce the CO₂ emissions of most energy-intensive companies in the Netherlands, most of which fall under the energy-saving covenants. To lower. Until 2025, a large part of the Climate Agreement target for industry (14.3 Mton) cannot be achieved yet. This is because the infrastructure required for this is often still lacking (hydrogen, CCS, upgrading electricity grids). In order to be able to take steps, Project 6-25 focuses on innovations that improve process efficiency while reducing costs. The ambition is to achieve a reduction of 6 Mton CO₂/year up to and including 2025. An independent validation study by Royal HaskoningDHV (RHDHV) and Process Design Center (PDC) has shown in 2020 that an emission reduction of 3 Mton should be achievable by 2025. This is divided over various industries (refineries, chemicals, food, paper and cardboard, steel, ceramics) and solutions (motors & drives, heat (recovery), ICT and AI, (off-balance) financing and membrane separation). In 2021, 100 ETS companies were approached, 90 of which have expressed an interest in participating in P6-25. The scoping and identify phases have been completed for 3 companies. Another 7 companies are in the scoping phase.

KVW_P625

VEMW actively participates in Project 6-25 to lower the barriers for the implementation of energy efficiency enhancing technology in industry, aimed at CO₂ reduction. Technology at the TRL8-9 level has been independently validated by engineering firms RHDHV and PDC in 2020. The comprehensive results are available to all industry members. Up to and including 2021, about 35 members from a group of 100 approached largest ETS companies have expressed interest (in terms of emissions) and explored the possibilities of P6-25. This has a value that we estimate at a fixed rate at **[RES2_P625]** euros.

Energy saving obligation ETS companies

In 2020, the MEE and MJA-3 covenants to encourage energy savings expired. The Minister of EZK (Economic Affairs and Climate) has introduced an energy saving obligation for ETS companies in 2021. VEMW has emphatically advised against this because ETS companies already have an incentive to make savings through the pricing of CO₂ emissions (ETS emissions trading and CO₂ levy), in addition to focusing on renewable energy. Together with VNO-NCW, FME and VNCI, VEMW has calculated that the obligation will result in no more than 0.1 to 0.6 Mton in extra emission reduction on a statement of 19.4 Mton (14.3 Mton Climate Agreement and 5.1 Mton of current policy). The efforts and administrative burdens involved do not outweigh this. 'But', according to the minister, 'I am dealing with a political reality, a wish of the House'.

Investment plans, prices and costs (network, investments)

Every two years, the network operators publish their investment plans in which they set out their quality and capacity investments for the next 10 years. These investment plans are insufficiently transparent and do not sufficiently take into account the large growth in electricity consumption.

VEMW has given its view on the draft investment plans of the grid managers and has put forward methods to increase the transparency of the grid managers. “By deploying VEMW, in collaboration with other representative organisations, the grid operators have indicated that they want to involve stakeholders earlier and better in the development of at least the scenarios of the following investment plans. This should lead to grid managers taking better account of the demand for infrastructure from the market,” said Tom Strengers, advisor to VEMW. “Our view has also led to concrete improvements in transparency, among other things through improved graphic imaging from Liander. Our contact with ACM has resulted in Enexis publishing its financial figures in its investment plans from now on, which will lead to more insight into the efficiency of Enexis.” In the coming period, VEMW will strive to strengthen the position of representative organizations of grid users in the decision-making process regarding the investment plans, so that it can better represent the interests of electricity consumers.

Carbon Capture and Storage

The SDE++ decision shows that Carbon Capture and Storage (CCS) is one of the most efficient methods for industry to reduce a significant part of its CO₂ emissions in the short term. Last year, VEMW wrote a position paper in which the preconditions are identified for exploiting the full potential of CCS. Tom Strengers, policy advisor at VEMW: “One of the limiting factors was the cap in the SDE++ on CCS for industry of 7.2 Mton. The position paper was shared with the ministry and this influenced the decision to increase the cap by 2.5 Mton. This has reduced the race between companies that want to claim this subsidy and more companies can effectively reduce their CO₂ emissions. In addition, the European Commission plans to facilitate the CCS by, among other things, adding more transport modalities in the EU ETS. The Commission is also considering issuing negative emission allowances for Bio Energy CCS and Direct-air CCS. VEMW will remain involved from IFIEC and provide input on the design of these proposals.”

KVW_CCS

Increasing the cap on CCS by 2.5 Mton in the SDE++ will allow more companies to lay claim to the SDE++. For companies that qualify for subsidy via the SDE++, VEMW has calculated a value based on the extra potential for CCS times the difference in costs with the 2nd sustainability option for heating, an E-boiler, [€/ton] times the contribution of VEMW to this file and that will be divided equally among the parties likely to apply CCS. We calculated the result for [company] on [RES2_CCS].

Electrification roadmap (CESSes, front runners, TIKI/MIEK/ Steering Committee Extra Assignment)

In the past year we have been busy in the Netherlands on making the CO₂ reduction target more concrete. This reduction target has been made concrete on the basis of various reports in which VEMW has contributed, such as the Electrification roadmap, the Steering Committee Extra Task and the TIKI (Taskforce Infrastructure Climate Agreement Industry).

These reports set down the potential for electrification, the expected additional demand for electricity and the preconditions for realizing the demand for electrification, hydrogen and CCS. The industry has further elaborated on the total task in the CESSes (Cluster Energy Strategies), overseen

from the frontrunners' meeting, which is chaired by our chairman Gertjan Lankhorst. This has resulted in plans to rapidly reduce large amounts of CO₂ emissions. Many of these plans are conditional on infrastructural projects and VEMW tries to boost these projects from the PIDI (Programme Infrastructure Sustainable Industry) and the MIEK (Multi-year Program Infrastructure Energy and Climate), so that failure to achieve the objectives will not affect the industry. lie. At the end of 2021, it turned out that reality is highly subject to change. "Next year many of the plans will have to be revised," says Strengers. "The reduction targets have been tightened up to 55% in the coalition agreement and the European Climate Act, and these proposals from, among others, Fit For 55 already largely define the method by which this must be done. That is why VEMW is involved in tightening up the Extra Assignment and in the CO₂-free flex working group, because the energy supply is a crucial precondition for industry to become more sustainable."

Platform Sustainability Industry (VEMW, RVO and FedEC)

VE VEMW has set up and set up the Platform for Sustainability Industry (PVI) in collaboration with RVO and FedEC. NVDE also joined in 2021. The next step is the realization of a website, which should grow into a platform where industrial companies can exchange knowledge and experiences about the reduction of CO₂ emissions through energy conservation, electrification of heat demand and application of new energy carriers such as hydrogen. They receive technical, economic and legal support. For specific questions, an expert team is ready to deal with questions personally. If the required knowledge is not available in-house, the question is distributed within the network of consultants, installers, contractors, branches and governments.

KVW_PVI

The bundled information, knowledge and expertise on the website www.verduurzamingindustrie.nl gives [company] a fixed added value of [RES2_PVI] euros.

Indirect cost compensation

Electricity producers fall under the EU ETS and pay extra CO₂ costs for their production. These are passed on in the electricity price. The European Commission allows member states to grant compensation to EU ETS companies that consume a lot of electricity and are sensitive to the leakage of activities (carbon leakage). This prevents them from paying double for CO₂ through their own emissions and the purchase of electricity. In 2020, VEMW has committed itself to the Indirect Cost Compensation (IKC) scheme. Partly at the insistence of VEMW, the Netherlands also made use of the Indirect Cost Compensation scheme in 2021 to compensate for this. However, the scheme is under pressure and is even in danger of disappearing due to a political agreement in the Climate Agreement. In our view, this is unjustified, because the regulation is of great importance for the competitive position of the energy-intensive industry. The scheme can actually be used to stimulate electrification, a crucial sustainability route for industry, by compensating indirect CO₂ costs. Further electrification contributes to making the electricity mix more sustainable, so that the scheme will automatically become redundant by 2030. VEMW discussed this several times with the Ministry of Economic Affairs and Climate Policy in 2021 and will continue to work on this. Also European, in order to achieve a level playing field.

Unfortunately, the budget of the scheme has been reduced from 179 million euros (2020) to 80 million euros (2021). This amount will be divided among the – amended list of – carbon leakage sectors

(processes) that are entitled to this. This partly covers the increased price of CO₂ emission rights for the companies that are allowed to make use of this scheme.

SDE⁺⁺ incentive scheme for industry emissions reduction

The new, expanded Sustainable Energy and Climate Transition Stimulation Scheme (SDE⁺⁺) has been in force since 2020. In addition to stimulating renewable energy (wind, sun, biomass, geothermal energy, hydropower), SDE⁺⁺ now also focuses on stimulating the use of CO₂-reducing technologies in industry. By subsidizing the unprofitable top (ORT) of sustainable technologies, SDE⁺⁺ focuses on cost reduction and scaling up. By broadening the scheme, instead of just the supply (renewable energy production), the demand for sustainable energy (CO₂ reduction end user) is now also stimulated. This is happening specifically for three new categories of electrification: heat pumps, electric boilers and green hydrogen production. In addition, a maximum of 9.7 Mton in CO₂ emissions is eligible for an SDE⁺⁺ subsidy for Carbon Capture and Storage (CCS), which currently has the smallest unprofitable peak for emission reduction.

Senior policy advisor Jacques van de Worp: “With the Climate Agreement, VEMW has committed itself to a switch from supply to demand stimulation. Stimulating demand enables growth in the supply of renewable electricity and reduces costs. In total, the government has released a budget of 5 billion euros for 2021 (one round). The aim of VEMW is to improve the three new SDE⁺⁺ categories and make them more in line with the end user's practice. Because the SDE⁺⁺ works on the basis of a technology-independent tender (euro/ton CO₂ avoided), the subsidy applications with the smallest subsidy amount per tonne are awarded first. As a result, the more expensive technologies do not come into play when the subsidy pot is over demanded.”

The costs of designated industry categories, such as electrification and CCS, can be reduced if the government addresses the right barriers. VEMW has drawn the attention of the Ministry of Economic Affairs to the loss of free ETS rights, which occurs when gas (scope 1) is replaced by electricity (scope 2) in some cases. In addition, the costs for upgrading the electricity connection are not included in the SDE⁺⁺ and there is no compensation for the double transport costs (gas and electricity) that have to be paid with some technologies. VEMW also argues for an increase in the number of subsidisable operating hours for electric boilers and hydrogen production. In the 2021 round, the set limit of 2,000 operating hours has been increased to 3,000 hours in order to further stimulate large-scale electrification and the associated CO₂ reduction. This limit has now been increased to 4,200 hours in the SDE⁺⁺ round 2022.

KVW_SDE

Every industrial company can make use of the SDE⁺⁺ subsidy. The calculated result of our efforts for [company] is based on avoiding a part (5%) of the company's CO₂ emissions and the CO₂ price (50€/ton), of which we attribute 10 percent to our efforts. We have calculated the result of our efforts on [RES2_SDE].

Electrification of the industry (e-boiler/heat pump)

Electrification of the heat demand in industry, a demand that is traditionally covered by the use of natural gas, is an essential solution route for decarbonisation. This is especially true for steam and hot water needs below 250 degrees Celsius, as is typical in the food industry and paper and board production processes. Technologies are already available on TRL 8-9 that can be used in this way,

such as the hybrid boiler (electricity and gas), the electric or e-boiler and the heat pump. These solutions will have an unprofitable top in 2021 that must be covered by stimulation (SDE++). In addition, a switch from natural gas to electricity almost always requires a reinforcement of the electricity connection. The available connection and transport capacity is often a bummer. In 2021, the trend has emerged to partially electrify the heat requirement, to gain experience with this and to reduce costs through the option of arbitrating between the gas and electricity prices on the market. Particularly in the energy transition period, this can offer interesting opportunities with an increase in price volatility.

KVW_BoiWP

EMW has organized a number of information meetings on electrification. In addition, a great deal of information has been made available via the Platform for Sustainability Industry and VEMW has requested practical space for electrification solutions in industry in the SDE++ incentive scheme. For this we determine a fixed membership benefit [RES2_Boiler_WP] euros.

Hydrogen as a low-carbon molecule for industry

In the transition to a low-carbon energy supply, we cannot suffice with electrons (electricity), but molecules are also needed as raw materials and energy carriers. Green gas already exists, often produced from biogas, but the potential of hydrogen is many times greater. It can be produced on a low-carbon basis from natural gas, where the CO₂ is captured and stored in the subsurface (CCS) or reused (CCU). We call that blue hydrogen. And it can be produced green by using renewable electricity to split water into hydrogen and oxygen (electrolysis).

In 2020, VEMW has drawn up a hydrogen position paper to outline a framework and preconditions for supply (generation, transport, storage, use) and market forces (marketplace, exchange, certification). In 2021 we introduced the interests and wishes of the industry in an interdepartmental Cross Sectoral Working Group on Hydrogen (CSWW). This working group provided the input for a National Hydrogen Program (NWP) that should outline a policy framework and a framework for the development of a European (regional) hydrogen supply.

CO₂-free flexibility – position of the industry

VEMW contributes to the development of a well-considered policy to ensure that sufficient CO₂-free flexibility is available in the system in a timely manner to safeguard the reliability of the grid at an effective cost. A study into the potential of different sources of CO₂-free flexibility has been carried out by Aurora and forms the basis for policy that is still to be developed. VEMW monitors that, where research does not do this enough, the various sources of flexibility are treated equally, including demand-side management. Policy developments should enable the value of flexibility in consumption processes to be cashed in and lead to more efficient imbalance costs. In the coming years, as a result of the elaboration of the various policy options, this file will acquire a high value for providers of flexibility.

KVW_CO2flex

VEMW estimates the value of preventing an increase in imbalance costs at [RES2_CO2flex] euros for [company].

Infrastructure networks

Every two years, the network operators publish their investment plans in which they set out their quality and capacity investments for the next 10 years. These investment plans are insufficiently transparent and do not sufficiently take into account the large growth in electricity consumption. VEMW has given its view on the draft investment plans of the grid managers and has suggested methods for the grid managers to increase their transparency. “By deploying VEMW in collaboration with other representative organisations, the grid operators have indicated that they want to involve stakeholders earlier and more effectively in the development of at least the scenarios of the following investment plans. This should lead to grid managers taking better account of the demand for infrastructure from the market,” says Strengers. “Our view has also led to concrete improvements in transparency, for example through improved graphical imaging from Liander and our contact with the ACM has resulted in Enexis publishing its financial figures in its investment plans from now on, which will lead to more insight into the efficiency of Enexis. .” In the coming period, VEMW will strive to obtain a stronger position with regard to the investment plans, so that it can better represent the interests of energy users.

Tom Strengers, Policy advisor energy

'The manufacturability problem is the next challenge'

'2021 was dominated by ambition and the associated problems. The European Union and the cabinet have raised the targets for CO2 reduction to 55 percent and propose methods in the Fit For 55 package and the coalition agreement to achieve this reduction, while only taking limited account of the limitations. ACM calls this the manufacturability problem. Personnel is difficult to obtain, prices for energy and raw materials are high and bureaucratic processes often delay unnecessarily long. This has ensured that the network operators frequently indicate that the networks are filling up and that there is little they can do about this. Despite the fact that the consequences of the energy transition could be anticipated in advance. As a result, sustainable energy production cannot be connected and companies cannot reduce their CO2 emissions.

From 2022 we will learn how to deal with the manufacturability problem and how to reduce it. It will be a year of solutions. How are we going to achieve sufficient hydrogen, the network and the market organisation? How do we ensure that the congestion problem does not take over and unnecessarily hinders companies? How can we ensure that CO2 emissions can be drastically reduced through CCS? Last year I became acquainted with the entrepreneurial spirit and innovative power of Dutch industry. Emission reduction is the next business case that can be achieved and the manufacturability problem is the next challenge. VEMW likes to think along in solutions around the manufacturability problem.'

HEAT

Heat decoupling: does Heat Act 2.0 lead to utilization of the potential?

By disconnecting that heat, residual heat from industrial companies and data centers can be a source for other parties to make their heat supply more sustainable in order to avoid the use of natural gas. Consider, for example, the heating of homes, offices, hospitals or glasshouses. This is usually done via

a local heat network. This heat-disconnection facility is regulated via the Heat Act, which was revised in 2021 in a Heat Act 2.0. The main focus was on removing bottlenecks, especially for protected customers (connection <100 kW). VEMW has asked the Ministry of Economic Affairs and Climate to draw attention to the fact that the decoupling potential will not simply be used under the intended Heat Act 2.0. This is because a number of important bottlenecks are not identified and/or not resolved: the organization of the uncoupling chain with unequal players (size, knowledge, expertise and interests), a lack of market incentives, a diversity of situations that require customization and inflexibility when it comes to the principles for investments, cost and revenue allocation and allocation of the climate benefits (emissions [rights]) in the chain (scope 1 and 3). In 2022, the Heat Act 2.0 must be passed by parliament. VEMW remains committed to increasing the potential utilization of heat decoupling, now and in the future.

KVW_WaUit

VEMW made efforts in 2021 to map out the bottlenecks with regard to heat decoupling and to address them at EZK. For the large energy users with significant decoupling potential, we value our efforts at a fixed amount of [RES2_WarmteUit] euros.

Jacques van de Worp, senior policy advisor energy

'The energy transition is gaining momentum'

'After the Climate Agreement became a fact in 2019 and many new initiatives and partnerships were created in 2019 and 2020, 2021 can be characterized as the year in which the implementation of the Climate Agreement was taken seriously. We saw an oversubscription of the SDE++ stimulus budget of EUR 5 billion by no less than EUR 7 billion (applications for EUR 12 billion). It was also a year with an increasing number of inspiring examples of energy saving and electrification in industry, which not only looked at the business case of, for example, an electric boiler, but also the possibility to reduce energy costs by flexibly switching between the use of electricity. (e-boiler) and gas (CHP or steam boiler). This will be an important trend for the coming years in preparation for hydrogen and CCS.'

Electricity

Energy act 1.0

VEMW contributed to the draft legislative texts for the Energy Act 1.0 on several occasions during 2021. In doing so, VEMW has focused on, among other things, the prevention of unnecessary obligations and avoidable administrative burdens for affiliates. We also argued for broadening the options for having sufficient connection capacity available in good time, for greater transparency in the event of transport shortages and for the sector's involvement in the drafting of new regulations. We have campaigned against the erosion of the rights of the affiliates as a solution to the current capacity shortage on the electricity grids. We also argued in favor of drawing up a legal framework for hydrogen. The law will be sent to the House of Representatives at the end of 2022: the final law is expected at the end of 2024

View of the regulation of the transmission system in the Energy Act: system at sea

In response to a memorandum on the proposed regulation of the offshore grid, VEMW explained why financing the offshore grid from general resources is permitted. At the same time, we expressed our support for the initiative to use the offshore grid to make large-scale consumers at sea (drilling platforms) more sustainable.

Generation and Load Data Provision Methodology

The Generation and Load Data Provision Methodology (GLDPM) includes an obligation for connected parties to provide additional data to the network operator with regard to their expected electricity consumption and generation. VEMW is directly involved in the design of these regulations. On behalf of large-scale consumers, we argue for an efficient scheme in which purpose limitation (the exclusive use of information for the previously intended purpose) and cost-effectiveness for the implementation of the GLDPM obligation are leading.

KVW_GLDPM

VEMW opposes an ineffective obligation to participate in GLDPM for connected parties with a connection smaller than 20 MW. When considering lowering this limit value, VEMW advocates an analysis of the added value of the information obtained. For affiliates, we estimate the value of preventing ineffective lowering of the limit value to be equal to the implementation costs. We estimate the avoided costs for the connection(s) of [company] at a value of [RES2_GLDPM] euros.

Position paper flex by VEMW and TenneT

VEMW has drawn up a joint Position Paper Industrial Flexibility with TenneT, thereby positioning flexibility in industrial processes on various policy agendas. This is the design for removing obstacles to the provision of demand-driven flexibility. This leads to two advantages for consumers: offering flexibility is facilitated and a more level playing field means that the most efficient source of

balancing energy is used. Policy developments should enable the value of flexibility in consumption processes to be cashed in and lead to more efficient imbalance costs. This file will have added value, especially for individual affiliates who offer flexibility through relaxed product requirements and better market information.

Rate system

VEMW has committed itself to revising both the small-scale and large-scale consumption tariff system. In the context of the KV rate system, we have represented the importance of social multisites in particular, which occasionally have connections that fall into the KV rate category. With regard to the GV rate system, we argued for a minimal effect on the market. The kW-max and kW-contract rate carriers are currently an obstacle to unlocking flexibility from demand-side management. This is in contrast to flexibility from production units, which do not have to pay these rates. A code change proposal is expected at the end of this year.

Balancing platforms

The input from VEMW and IFIEC contributed to the ACER decisions, which lead to a more effective operation of the trading platforms for aFRR, mFRR and imbalance netting. In VEMW's opinion, both the decision taken and the contribution made here contribute to a more efficient use of the sources of balancing energy available in Europe and thus to a reduced increase in balancing costs. As a customer, you will see this reflected in a reduced cost increase of the service that your BRP provides for [company]. The value of this file strongly depends on the price at which your BRP performs the balancing service for you

KVW_IFIECBal

The estimated value of this file is based on an avoided cost increase at your BRP, because the caused imbalance can be resolved more efficiently. Our efforts have resulted in an estimated added value of [RES2_IFIECBal] euros for [company].

Tariff decision Stedin

Together with Energie Samen, (Energy Together) VEMW has lodged an objection against Stedin's tariff decision for 2021. In that decision, an increase of 150 to 180 percent was established for the additional length of the cable for a new connection to the medium-voltage grid. We suspected that this increase partly compensated for erroneously low rates in the past. The justification for this cost increase could not be traced back to market parties. In the objection procedure, ACM decided that Stedin's cost increase was sufficiently substantiated, on the basis of documents submitted to ACM by Stedin. This substantiation has remained confidential during the objection procedure and has not been shared with VEMW. We have not appealed, partly because this substantiation would probably also have remained confidential on appeal.

Risk preparedness plan

From the European Union, each Member State is obliged to draw up a risk-preparedness plan for electricity for national and regional crisis situations. In this plan, risks to national and regional crises are identified. In addition, a governance structure and procedures are drawn up to be implemented at the time of a possible crisis and a process for preparing for a crisis. This plan is important for energy users, because security of supply is becoming a greater challenge due to the consequences of increased input of sustainable power into the grid and the risk of a Dunkelflaute (i.e. period during which no electricity is generated due to lack of sunshine and wind). The opinion of energy users must be taken into account because a crisis must not lead to another crisis because factories are forced to shut down in an unsafe manner. Even when recovery is made after a crisis, this must be done in an efficient manner, taking into account the social costs. Large consumers of energy were wrongly not included in the plan and VEMW has argued in favor of doing so in its opinion.

KVW_Risk

The risk-preparedness plan will ensure that major power outages are resolved more quickly. VEMW assumes that its contribution has led to an average of 1 percent less power failure in 25 minutes per year. This is multiplied by the average Value of Lost Load (€/kWh) times the electricity consumption (kWh) times the number of years until the plan is revised. For [company] this results in an advantage of [RES2_Risk_Preparedness].

Congestion management

VEMW is closely involved in the development of new rules on how to deal with scarce transport capacity. In the context of the draft decree on congestion management, VEMW has mainly argued for transparent and measurable decision-making, an unambiguous obligation for (regional) grid operators to perform congestion management and verifiable steps that the grid operator takes before it is allowed to reject a transmission request. We are currently awaiting the final decision of the regulator ACM.

Network rates

As a representative of interests, VEMW has put pressure on policymakers, regulators and network operators to establish transparent and efficient network costs. We provided critical feedback on method decisions and tariff decisions. The establishment of the method decisions is a lengthy process. We are closely involved in fundamental discussions about the method decisions that determine the tariff methodology from 2022. The pressure of VEMW on the various components of the method and tariff decisions means that costs are viewed more critically and must be motivated more sharply. The real Weighted Average Cost of Capital (WACC) leads to better cost-reflective rates, while a nominal WACC enables grid operators to settle their costs early on from affiliates. VEMW has appealed against the regulator's decision for a 'real WACC plus', whereby ACM opts for a middle course between a real and nominal WACC. VEMW is the only stakeholder that consistently provides input on the method decisions on behalf of consumers. This systematic input has a general dampening effect on the final tariffs. It is estimated that this represents a saving of 1.5 percent of the transport-related costs.

KVW_Nettar_LNB_RNB_E

For [company], these results represent a value **RES2_Nettar_LNB_RNB_E** euro. Based on your data known to us, it is estimated on which network level you are located. A saving of 1.5 percent is assumed for the costs per tariff carrier, such as contracted capacity or peak capacity. Your total consumption or the estimated value of the relevant tariff carrier is multiplied by this saving.

Cost benefit analysis

VEMW has responded to the consultation of the Cost-Benefit-Analysis (CBA), which is based on the Ten-Year-Network-Development-Plan. The CBA determines which projects receive European support, based on their contribution to the European energy system. An accurate CBA leads to support for the right projects, which contributes to the efficient use of European funds and an efficient European energy system.

Market model (Energy Only Model)

During the energy transition, fossil fuels are being phased out and renewable energy forms an increasing part of the electricity supply. With very low ('zero') marginal costs. This could lead to the current 'Energy Only model' no longer being sufficient. This model has pricing based on a merit order of marginal – operational – costs, where the price is set by the marginal power station. For many hours, the price setter is now a gas-fired power station. VEMW has set up an ad-hoc working group from the Electricity Task Force that provided input to the Ifiec Task Force Climate Action Enabling Energy Pricing (CAEEP). The working group and the Taskforce have come to the conclusion that with the growing share of renewables (in 2030 the Netherlands 70 percent and Germany 80 percent) the volatility in the electricity market (hour, day, week, season) will undeniably increase even further than is already the case. However, there will still be sufficient hours per year – certainly until 2030 – with a certain marginal price based on fossil fuels. More worryingly, in addition to the market, all kinds of costs related to transport, taxes and levies and compensation mechanisms differ per EU Member State, so that despite the market there is no level playing field. Policy differences per Member State regarding the use of lignite, coal and nuclear energy also contribute to this inequality. After the publication of the Acer electricity market monitor (April 2022), we will examine how we can act on this file.

Data security

VEMW has been involved in various processes since 2020 to facilitate the sharing of energy data for energy system processes and data sharing. This was partly due to proposals from VEMW to the energy sector to examine data and data infrastructure. In practice, there appear to be many barriers to sharing data between the various players in the energy system. There are also situations where there are insufficient guarantees for the security of data. Due to a system of agreements about the format and the exchange of data, data, such as measurement data or properties of a connection, must be made accessible safely. In 2021 it was decided to dismantle the current NEDU and to create two completely new organizations: the Market Facilitation Forum (MFF) and an Appointment System Administrator (BAS). The arrangement of the agreement system must, among other things, comply with new European regulations, aimed at making climate and energy targets possible locally. This regulation will be anchored in the new Energy Act (when it comes into force) and agreements on financial transactions (AFM) and data protection (AVG).

Chiel Bakker, Energy Policy Advisor: “By making metering data available, for example, new services such as price comparisons can be facilitated and, for example, verification of metering data by connected parties can be simplified. Access to the central connection register (CAR) provides direct insight into the correctness of the master data and enables connected parties to verify the data that concerns them.” A system of agreements should make it easier to share metering data with third parties and to facilitate verification of metering data by large consumers. To this end, VEMW drew up a data governance issue paper to make the interests of large consumers visible. We argue for a system of agreements that guarantees the legal certainty of affiliates. In addition, a governance structure for the system of agreements has been established. The IT technical systems required for this have been developed since February 2021 and have been operational since 1 April 2022.

Chiel Bakker, Policy Advisor Energy

‘Creating legal certainty in a smarter, tighter, weather-dependent energy system’

‘In 2021, a lot of time was spent on preparations to facilitate large-scale consumers in cashing in on the value of their flexibility. We saw – in addition to the explosively rising energy prices – an increasing number of hours with negative electricity prices. Towards 2030, this price volatility is expected to increase further. It is therefore important that large consumers do not experience any obstacles in the regulations if they can and want to organize their consumption processes more flexibly. At the same time, the rapidly increasing congestion on the electricity grids is already confronting large consumers with urgent requests to change their consumption on demand, and parties are looking for legal space to make smarter use of the scarce grid capacity. The boundaries of the regulations surrounding GDSs and direct lines become crystal clear. It also turned out to be a legally turbulent year, in which judgments of the Court of Justice led to a rewrite of Dutch legislation and the power of the independent regulator was confirmed. Due to the many developments and the enormous social pressure, it is important that legal certainty is safeguarded for large consumers, also when solving a grid capacity shortage and creating a smarter energy system.’

GAS

Method decisions: basis for the permitted efficient transport costs

The gas transport tariffs have been based on the European Network Code on Tariff harmonization (NC TAR) since 2019. A uniform rate applies for the input (entry) and extraction (exit) of gas from the transport system, the so-called postage stamp rate, with a cost allocation for entry-exit of 40:60. Distance is no longer discounted in the rate, which offers clarity and transparency. In addition to the introduction of virtual interconnection points, the choice for a postage stamp rate has further decoupled the virtual gas market and the physical gas transport system. The aim of this is to promote the functioning of the gas market.

KVW_Exit_LNB

By preventing costs from being passed on to end users, an advantage of four percent on the exit rate was also achieved in 2021 - the last year of the current Method Decision. For the connections of [company] that are directly connected to the national gas network of GTS, the benefit is derived from the annual volume (m³/year) times the energy content (kWh/m³), divided by 8,000 hours of operating time. For [company] we have calculated the result at [RES2_Nettarieven_gas_exit_LNB] euros.

KVW_Exit_RNB

For the connections made to the regional grid, we estimate the value of our cost allocation efforts based on the annual volume (m³/year) times the energy content (kWh/m³), divided by 4,000 hours of operating time. For [company] we have calculated the result at [RES2_Nettarieven_gas_exit_RNB] euros.

GTS gas transmission rates continue to rises

A ruling by the Trade and Industry Appeals Tribunal (Cbb) has given grid operators, including GTS, more financial scope for the calculation of the WACC capital expense allowance for the period from the current method decision 2018 to 2021. Permitted efficient costs may also be charged to grid users via tariffs. In addition, there is a decrease in calculation volumes due to the reduction in gas extraction in Groningen and the increasing booking of short-term transport capacity by shippers (recognised parties with program responsibility). This led to an average increase in gas tariffs of 8.6 percent in 2019, an average increase of 6 percent in 2020 and 3.7 percent in 2021 ('only' 1.3 percent at the exit points). Thanks to the efforts of VEMW, a maximum tariff effect (advantage) of 2.4 percent on the exit tariff has been achieved. It should be noted that an end user also pays for entry, but he does not see this amount because it has been incorporated into the commodity price by a supplier. This is the reason to keep it out of the calculation.

KVW_LNB_Stijg_exit

For those directly connected to GTS's national gas network, we have derived the capacity from the annual volume times the energy content divided by 8,000 hours of operating time. This results in an estimated result for [company] of [RES2_LNB_Stijg_Exit] euros.



vemw

Knowledge center and interest group
for non-domestic energy and water consumers

Companies, connected to regional gas networks also see tariff increases

We also see an increase in costs for the use of the regional gas distribution networks. This is due to the discounting of the costs of the national transmission grids and the decreasing calculation volumes. Companies will use less gas and residential areas will be cut off from gas (existing) or not connected to gas (new). The RNB transmission rates rose by 1.6 to 4.4 percent in 2021. Thanks to the efforts of VEMW, a tariff effect (advantage) of 1.5 percent on the transport capacity-dependent consumption tariff (tadv) has been achieved.)

KVW_Nettar_gas_RNB

For those connected to a regional distribution network, we have derived the capacity from the annual volume times the energy content divided by 4,000 hours of operating time. This results in an estimated result for [company] of [RES2_Nettar_gas_RNB] euro.

Water

Administrative Agreement on Water (Bestuursakkoord Water/BAWO)

In 2011, the central government, provinces, municipalities, water boards and drinking water companies agreed on measures for more efficient water management in the Administrative Agreement on Water (BAW). This was necessary because the total costs per year for the management of the water system and the water chain would rise from 7 billion euros in 2010 to 8-9 billion euros in 2020. This would put pressure on affordability and the costs for households and businesses rise sharply. In the run-up to the BAW, the parties have agreed to realize an efficiency gain of EUR 750 million in 2020. In the run-up to the BAW, VEMW pointed out the need for more efficient water management and strongly urged that measures be taken to achieve this. Moreover, in the past ten years we have put a lot of pressure on the implementation of the BAW through contacts with MPs.

The final report will be published in 2021, explaining the results. It appears that the intended efficiency gains have been amply achieved. The final report shows that in 2019 an efficiency gain of approximately 668 million euros was achieved in the water chain and an efficiency gain of approximately 404 million euros in the water system. The total efficiency gain achieved thus amounts to more than 1 billion euros. This is more than the target of at least EUR 750 million per year. Because the target has been amply achieved, the costs for members of VEMW have increased considerably less than would have been the case without the BAW.

KVW_Waterk

Based on your share in national (business) drinking water consumption and the efficiency gain of 1 billion euros, we have calculated that we have reduced [company]'s water bill by [RES2_Waterketen] euros per year.

Water profiles for better decision-making in the event of an impending water shortage

Following the evaluation of drought in 2018 and 2019, VEMW has proposed the creation of a new instrument: the water profile. A water profile provides insight into the water interests of an industrial water user. Basic data about the water use of an industrial company is presented in a well-organized way in a specially designed template. This concerns, among other things, the type of water that is used, the origin of this water, the intake pattern of water throughout the year and the sensitivity to disturbances in the supplied water for various parameters (eg salinity). It also indicates whether a backup facility is available. Any chain effects are also mentioned. This could include effects on the electricity grid and on the supply of products and water to other companies

In 2021, a pilot was carried out in the western port area of Rotterdam on behalf of the Ministry of Infrastructure and Water Management. VEMW was closely involved in this as a member of the steering committee. The pilot turned out to be successful: the water profile contributes to providing insight into the water interests of the industry and thus to the quality of decision-making in times of (imminent) water shortages. The results show that this new instrument can efficiently lead to better information provision and decision-making about measures in the event of an impending water shortage. In 2022, this new instrument will be applied in all freshwater regions.

KVW_ZoetW

We estimate that our efforts for industrial users of surface water can lead to a saving of approximately [RES2_Freshwater] euros. This mainly concerns avoided costs as a result of investments that cannot be made for the time being.

Guide to Legionella in water treatment systems

Following two incidents in 2017 and 2018, in which two industrial wastewater treatment plants were identified as a likely source for Legionella patients in the area, companies with a biological wastewater treatment plant are expected to manage risks of legionella growth and spread. In recent years, VEMW has emphatically profiled itself as a representative of companies that may be involved with legionella. For example, we have made agreements with Environmental Services, have our own research carried out within the community and we have insisted on a guideline for legionella prevention in AWZI. Such a guide should provide companies with clear tools for managing risks and must ensure that the companies involved are treated in an unambiguous manner by the competent authorities. A guideline will be prepared in 2021 under the direction of the Ministry of Infrastructure and Water Management. From VEMW we have actively contributed to this. The document provides concrete guidelines for the inventory, analysis and assessment of risks, while at the same time offering sufficient scope for a customized approach

KVW_Legio

These efforts have led to a saving for [company] of approximately EUR 300,000 per installation. This saving is based on the total avoided investments associated with the realization of a roof for your (biological) purification installation. Based on a depreciation period of five years, this means a saving of [RES2_legionella] per year.

Drinking water policy memorandum

The demand for drinking water is increasing due to population growth in the Netherlands, economic growth and growing drinking water consumption per capita. This puts pressure on the future drinking water supply. In 2021, the national drinking water policy will be reviewed and recorded in the Drinking Water Policy Document. Conscious and economical use of drinking water by household and business consumers is one of the spearheads of the policy.

For business use, this means that the minister wants to discourage the low-grade use of drinking water. This concerns, for example, the use of drinking water for cooling or rinsing. The right water is used for the right use. Due to the efforts of VEMW, a customized approach was chosen. The urgency and possibilities for saving drinking water are not the same everywhere. The pressure on the drinking water supply is greater in some parts of the Netherlands than in other parts. Furthermore, alternatives to drinking water are not always available. In other words: the possibilities for reducing the use of drinking water for low-value applications may be broader for one business user than for another business user.

Water rates

Members of VEMW pay different water rates and charges. [company] pays the water company for the drinking or industrial water that is taken off and the water manager (water board or Rijkswaterstaat) for the process water that is discharged indirectly (to the sewerage system) or directly (to surface water). A sewerage levy is due to the municipality and a groundwater levy to the province if groundwater is extracted. Thanks in part to the efforts of VEMW, it has once again been ensured that, despite the pressure on the costs of water management, there is a controlled development of the various water (related) rates.

Specifically for the drinking water rates, it is important that in 2021 the cost of capital that drinking water companies must apply in 2022, 2023 and 2024 (also known as WACC, Weighted Average Cost of Capital) has been set by the Minister of I&W at 2.95%. That is slightly higher (0.2%) than in the period 2020–2021. However, the increase is considerably lower than the drinking water companies would have liked. A low WACC tempers drinking water rates.

KVW_DWTar

The efforts of VEMW have led to a tempering of drinking water rates. We estimate that this amounts to a saving of 1.5 percent. With an average drinking water tariff of 82 cents per cubic meter, this leads to a saving of approximately [RES2_DW tariffs] for [company].

Policy on unforeseen discharges

The policy for unforeseen discharges relates to environmentally harmful activities that have a discharge route to surface water and/or an WWTP and can therefore pose a risk to surface water and/or WWTP. In 2021, the policy will be updated and recorded in a new Handbook on Unforeseen Discharges. The aim of the policy is to provide insight into and classify the risks of unforeseen discharges. Partly due to the efforts of VEMW, a new selection system for the classification of risks has been introduced. This is the “water-relevant risk test” that consists of a pre-selection and an extensive selection. A distinction is made between companies with a higher and lower risk of unforeseen discharges. Higher risks require more efforts from operators. Companies with small quantities of hazardous substances do not have to do anything on the basis of the pre-selection. The new system focuses more than the old one on the practice of industrial companies

Roy Tummers, director Water

‘New instrument for better decision-making in the event of a (imminent) water shortage’

‘In 2021, a new instrument, partly developed by VEMW, will be tested in practice: the Water Profile. During a pilot project it appeared that applying the water profile can actually lead to better decision-making in times of imminent water shortage. By bringing in the water interests of industrial companies in a timely manner, decisions by the Regional Drought Consultation can be better substantiated. In 2021 it has also been calculated that parties in the water chain (drinking water companies, water boards and municipalities) have succeeded in realizing more than one billion euros in efficiency gains per year. That is even more than the target of 750 million euros per year that was included in the Administrative Agreement on Water (BAW) from 2011 and that had to be achieved in 2020. In the run-up to the BAW, VEMW strongly urged savings. In the years that followed, we kept up the pressure through our contacts in the House of Representatives. The efficiency gains achieved have resulted in a very controlled increase in the water bill for citizens and businesses.



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for non-domestic energy and water consumers

In addition, together with various other parties, we took important steps in 2021 towards a guideline for legionella prevention in water treatment plants. The result provides concrete guidelines for companies and competent authorities with which they can give substance to the control of the risk of growth and spread of Legionella. At the same time, companies retain the option of opting for a method of control that suits their situation.”

List of abbreviations used

ACER: European Union Agency for the Cooperation of Energy Regulators
 ACM: Autoriteit Consument en Markt (Market authority)
 AFM: Autoriteit Financiële Markten (Financial authority)
 AVG: Algemene Verordening Gegevensbescherming (Privacy Legislation)
 aFRR: automatic Frequency Restoration Reserve
 BAM (Carbon) Border Adjustment Mechanism
 BAS: Beheerder Afspraken Stelsel (Administrator Appointments System)
 BAW: Bestuursakkoord Water (Administrative Agreement Water)
 BRP: Balance Responsible Party
 CAEEP: Ifiec Taskforce Climate Action Enabling Energy Pricing
 CAR: Centraal Aansluitingen Register (central register of connections)
 CBAM: Carbon Border Adjustment Mechanism
 CCS: Carbon Capture and Storage
 CCU: Carbon Capture and Usage
 CES: Cluster Energie Strategieën (Cluster Energy Strategies)
 CSWW: Cross Sectorale Werkgroep Waterstof (Cross sectoral working party hydrogen)
 ESCO: Energie Service Company (Energy Service Company)
 EU-ETS: EU Emission Trading System
 EZK: ministerie van Economische Zaken en Klimaat (Ministry of Economic Affairs and Climate)
 FedEC: Beroepsvereniging Energiedeskundigen (Professional Association of Energy Experts)
 FME: ondernemersorganisatie voor de technologische industrie (entrepreneurial organization for the technology industry)
 GLDPM: Generation and Load Data Provision Methodology
 IKC: Indirecte Kosten Compensatie (indirect cost compensation)
 ISPT: Institute for Sustainable Process Technology
 MFF: MarktFaciliteringsforum (MarketFacilitation Forum)
 mFRR: manual Frequency Restoration Reserve
 MIEK: Meerjarenprogramma Infrastructuur Energie en Klimaat (Multi-year Infrastructure Energy and Climate Programme)
 NC TAR: European Network Code on Tariff harmonization
 NEDU: Nederlandse Energie Data Uitwisseling (Dutch Energy Data Exchange)
 NVDE: Nederlandse vereniging duurzame energie (Dutch Association for sustainable energy)
 ORT: OnRendabele Top (unprofitable top)
 PDC: Process Design Center
 PIDI: Programma Infrastructuur Duurzame Industrie (Program Infrastructure Sustainable Energy)
 PPA: Power Purchase Agreement
 PVI: Programma Verduurzaming Industrie (verduurzamingindustrie.nl) (Industry Sustainability Program)
 RNB: Regionale Netbeheerder (regional network operator)
 RVO: Rijksdienst voor Ondernemend Nederland (Netherlands Enterprise Agency)
 RWS: Rijkswaterstaat (Dutch Water Authority)
 RWZI: Regionale Water Zuiveringsinstallatie (Regional Water Purification Installation)
 SDE++: Stimulering Duurzame Energieproductie en Klimaattransitie (Stimulating Sustainable Energy Production and Climate Transition)
 SER: Sociaal Economische Raad (Social Economic Council)
 Tavn: Transport-Afhankelijke Verbruikers Transporttarief (transport dependant consumers transport tariff)
 TIKI: Taskforce Infrastructuur Klimaatakkoord Industrie (Taskforce Infrastructure Climate Agreement Industry)
 TRL: Technology Readiness Levels
 VNCI: Vereniging Nederlandse Chemische Industrie (Dutch chemical industry association)
 WACC: Weighted Average Cost of Capital