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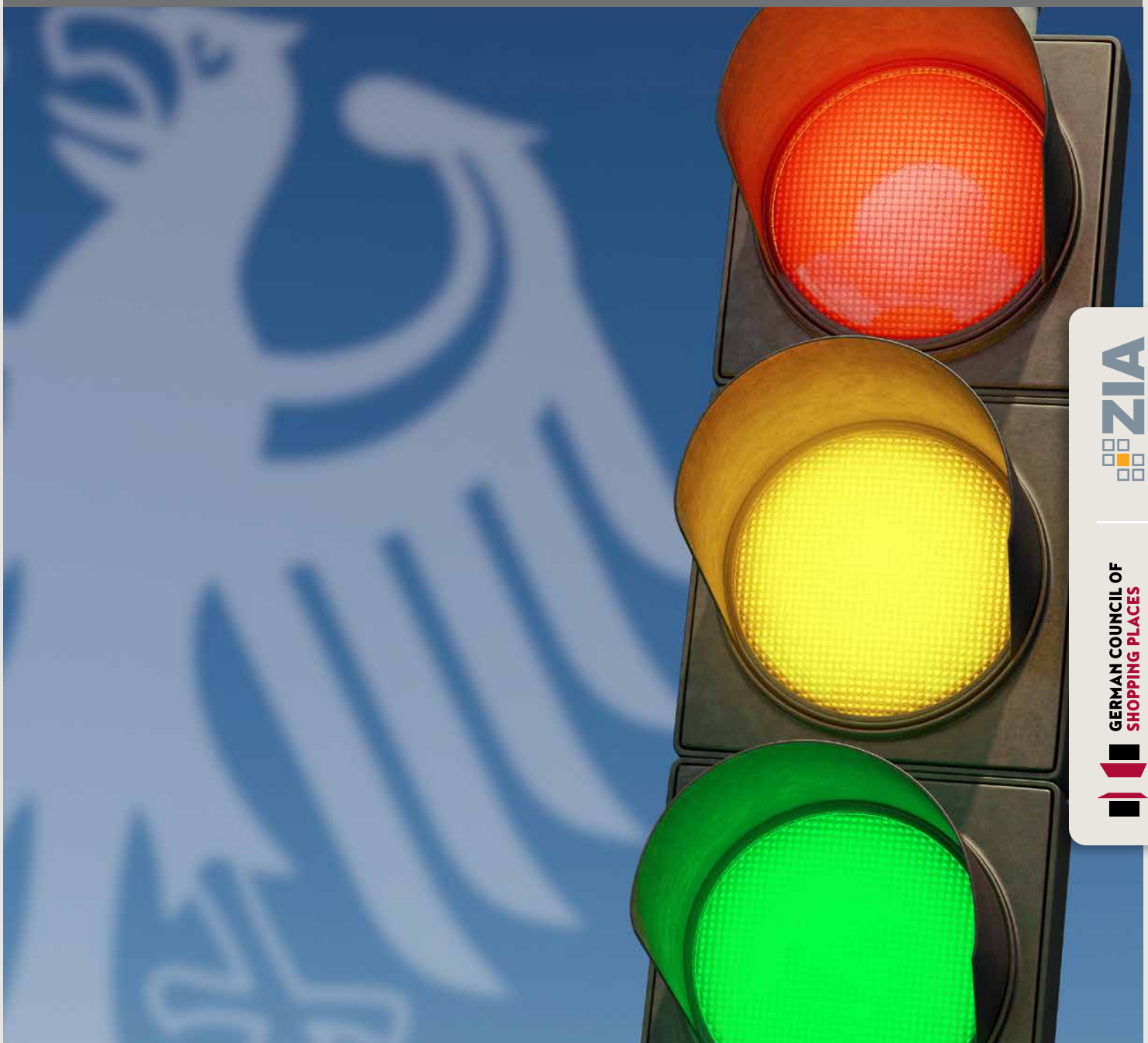
DOCUMENTATION
OVERVIEW OF INITIATIVES TAKEN BY THE RETAIL PROPERTY INDUSTRY TO REDUCE ENERGY CONSUMPTION



ZIA

GERMAN COUNCIL OF SHOPPING PLACES

Context

Over the past two years, the retail and retail property industries have suffered significantly due to Covid-19 measures and restrictions, threatening their very existence. The virtually unrestricted growth of online retail throughout this period and the impact of store closures during the pandemic have taken a massive toll on vibrant city centres. The current energy crisis poses yet another major challenge to the retail and retail property industries following the onset of the war in Ukraine. Since late spring, skyrocketing energy costs have led to intensive planning and implementation of a wide range of energy-saving measures, with discernible success. As a matter of high priority, much time and effort has been invested from the real estate industry, which has worked in close cooperation with public authorities and representatives from the energy sector.

We have made a strong commitment to collectively address the energy crisis and its multiple challenges. However, against the backdrop of the severe upheavals that have occurred in recent years to the detriment of the retail and retail property industry, there is also a need for a social and political consensus to ensure the air needed to breathe, the energy needed to live, and the conditions needed for the survival of a vibrant retail landscape are available and sufficient.

The examples outlined in this document provide an up-to-date overview of the many measures that have already been taken or are currently being implemented, and next steps being discussed – despite potential implementation challenges. Nevertheless, further ways to reduce energy consumption are considered and discussed with experts on an ongoing basis.

Collectively, we will continue to make a tangible contribution, always keeping the preservation of vibrant city centres in mind.

Christine Hager and Dr. Andreas Mattner

Christine Hager,
GCSP Board Chairwoman

Dr. Andreas Mattner,
President of the German Property Federation (ZIA)

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ZIA

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“Decarbonising the built environment is critical if Europe is going to meet its climate targets. As a member of ECSP, this report from our German colleagues fulfils an important leadership role in understanding how our industry in Europe’s biggest economy can best respond. As a sector attracting millions of visitors across Europe every day, how we continue to adapt to the energy transition, reduce our emissions, and become more energy efficient is a major priority.”

Peter Wilhelm

Peter Wilhelm,
Chairman of ECSP

ECSP | European Council of Shopping Places

Greeting

by the German Federal Minister for Economic Affairs and Climate Action, Dr. Robert Habeck

Esteemed Entrepreneurs, Ladies and Gentlemen,

during these times of unprecedented challenges with regard to the energy supply, the German government has taken a wide range of measures to ensure that a reliable supply of energy continues to be available to industrial businesses, commercial enterprises and private households. The ongoing campaigns and calls to save energy and increase efficiency have made a significant contribution to the success of those measures. Accordingly, the satisfaction that I feel with respect to the publication that you hold in your hands is tremendous, and I would like to take this opportunity to thank you for your outstanding commitment and solidarity.

The resolute continuation of our efforts to conserve gas and electricity is our collective responsibility. The consumption reduction targets are ambitious, yet necessary. This document contains a number of helpful retail-oriented suggestions that may also be relevant for use in other areas – many of which have already been implemented and prove that they are effective. As it is stated on the following pages: In order to avoid endangering the security of supply, a contribution by each and every one of us towards the saving of energy is essential in order to ensure that the measures we take to diversify the supply and to quickly ramp up renewable energies can lead us out of the current crisis as quickly as possible.

I sincerely hope that the level of commitment to energy saving will remain as high as it is today. I also hope that this brochure will contribute to exploiting any potential that may still exist in the retail sector. If all parties involved, in both business and society, contribute their share, we will surely be able to make it through this difficult time in good shape.

Dr. Robert Habeck

Dr. Robert Habeck,
Stellvertreter des Bundeskanzlers sowie
Bundesminister für Wirtschaft und
Klimaschutz
der Bundesrepublik Deutschland

The Basics

The energy-saving regulations amended by the federal cabinet on 29 September 2022, and subsequently adopted, form the basic framework for all energy-saving measures in the retail property sector. They determine essential work processes, investments, and contractual partner relationships, with a constant focus on balancing stable and economically sustainable development with the responsible use of energy resources.

Two associations, the German Council of Shopping Places (GCSP) and the German Property Federation (ZIA), have assumed their political and economic responsibility in this regard and are supporting the initiatives led by the German Federal Ministry of Economics and Climate Protection to find further ways of conserving energy in every way possible.

The measures that have already been implemented by numerous GCSP and ZIA member companies in recent weeks and months have been successful. Furthermore, we intend:

- to proceed with the initiated measures in a more focused manner with respect to the aforementioned economic and political consequences;
- to record, present, and communicate the current status as an overall performance; and
- to measure and present the positive effects achieved.

When objectively assessing the energy-saving effects that have already been and are yet to be achieved, it should be noted that the vast majority of retail properties are structurally and energetically state-of-the-art and energy-efficient.

Joint Achievement of Ambitious Goals

The major retail property operators in Germany have been setting ambitious targets for years, significantly reducing energy consumption on a sustainable basis through modernisation and investment in building technology and equipment. Further reductions are currently being planned and implemented. In the context of the energy crisis, additional measures have been taken to further reduce consumption in the short term. Shopping centres are generally equipped with high-performance building management systems that allow consumption to be controlled and monitored in a very precise manner. Sustainability targets, especially those of listed corporations, are transparent and offer no alternatives from an economic/strategic perspective.

Observance of Legal Framework Conditions

Any further energy-saving measures must also include tenancy agreements, labour law assessments, and further legal evaluation and consequences, as well as guidelines on how these should be assessed.

When evaluating the potential for even greater energy savings, such as the reduction of electricity consumption by ventilation systems, the legal framework should be taken into account. To the extent that lease agreements stipulate, e.g., in the standard building description, that landlords must maintain a certain air exchange rate for the ventilation of the leased areas, an amendment to the lease shall be required should the air exchange rate be reduced below the contractually agreed rate. Such an amendment shall only be made by way of a written addendum to the lease agreement, provided that it has a term of more than one year, in order to comply with the statutory written form requirement of Article 550 (1) of the German Civil Code (BGB).

Alternatively, legislators can take action in that regard and, in accordance with the regulation in Article 3 EnSikuMaV (Ordinance on Secure Energy Supply and Measures with Short-term Efficiency, Verordnung zur Sicherung der Energieversorgung über kurzfristig wirksame Maßnahmen), suspend the validity of an agreement in a lease for commercial space that is to be classified as sales premises under building law, according to which the landlord must maintain a certain outside air rate when ventilating said space for a certain period of time (i.e., during the heating period), and oblige the landlord to maintain a minimum outside air rate of 6 $m^3/m^2/h$. Technical adjustments can then be made immediately. The same applies to the observance of minimum temperatures.

Owners, operators, and tenants of retail properties are working towards joint solutions and results to address impacts and issues resulting from energy-saving measures in a partnership-oriented and economically sensible manner. The retail properties remain in close communication with their tenants to make the best possible use of potential savings and continue to ensure safe and smooth operations, especially with respect to the year-end business, which is particularly important for brick-and-mortar retail. The objective should always be to ensure the burden is shared through fair agreements based on equal conditions and partnership.

The following documentation provides an overview and summary of the energy-saving measures in the retail property sector that have already been successfully implemented and/or can be executed in the short term. The measures presented are based on the high standard of energy management found in the retail property sector. When evaluating the documented reduction potential, this high standard is to be regarded as an existing baseline. At the same time, the willingness to consistently search for further optimisation and to implement such measures in a targeted manner is also evident. Certain measures, however, are only applicable for a limited period of time, including the development of systems for the efficient control of energy consumption and the installation of more efficient appliances, as well as the installation of renewable energy generation systems on site today and potentially in the future. In general, all measures are aimed at reducing energy consumption by an additional 10 percent within two years.

Energy-saving Measures Show Outstanding Potential

As a result of the current energy crisis and in order to reduce retailers' ancillary costs, member companies from the shopping centre sector, for example, have already taken numerous additional short-term measures since the summer of 2022, including the goal of reducing total CO_2 emissions by up to 50 percent by 2030, compared to the pre-pandemic period. For example, some shopping centre operators intend to equip a large proportion of their centres with large-scale, roof-mounted solar panels, which will enable them to produce much of their required general electricity themselves in the future.

Initial figures from October show that, compared to the reference year of 2019, an additional 15-20 percent of energy savings are possible.

Overall, the measures that have already been implemented by the retail property sector to date have resulted in energy savings of 15 percent (average value). The additional measures outlined below will allow for an additional 10-12 percent in savings. Targeted support from the political arena would help reinforce such efforts.

Working Together Means: Everyone Contributes

Given the fact that the high level of energy consumption required by the data centres of online retailers remains unrestricted, further limitations should not be imposed on the retail sector against the background of equal conditions for both industries.

Cooperation among the German retail, service, gastronomy, and retail property industries has reached a new and improved level when faced with the Covid-19 pandemic. Even during these difficult times, this cooperation will be maintained, requiring a great deal of initiative from all sides to ensure responsible and sustainable fair partnership.

Documentation of Energy-saving Measures Implemented Across the Board at Retail Properties

Legend

Already implemented

In the process of being implemented

Implementation critical, since the time/cost relation to the savings effect is very questionable

Documentation is based on measures taken by the member companies of GCSP and ZIA. All measures, both short-term (temporary) as well as those that require increased effort and investment, have been in full effect since the beginning of August 2022, are in the process of being implemented, or are currently under further review due to an unfavourable time/cost ratio to the savings effect.

1. Heating Measures

In general, the specifications for minimum air temperature values for work rooms and workplaces apply as follows:
According to the Workplace Guideline on Room Temperatures (Section 1 ASR 6 Article 6) of the Workplace Ordinance, the air temperature in workrooms, depending on the work posture as well as the severity of the work, shall be at least:

Predominant Work Posture	Work Severity Light	Medium / Heavy
Sitting	+20 degrees C	+19 degrees C-
Standing and/or Walking	+19 degrees C	+17 degrees C+ / 12 degrees C

Light: Sitting quietly with light hand/arm work, combined with occasional walking
Medium: Moderately heavy hand/arm or leg work while sitting or walking
Heavy: Heavy hand/arm, leg, and trunk work while walking or standing

These legal requirements must not be disregarded for any energy-saving measures, even in the event that the legislation has stipulated a reduction for public buildings. A corresponding extension to non-public buildings shall require extensive coordination with all representatives involved in the workplace guidelines (e.g., VERDI).

Heterogeneous structures equipped with multiple energy carriers (gas / electricity / district heating) shall require differentiated measures in specific consideration of local conditions.

Targeted Gas and Energy Savings:

Heating energy conservation at commercial properties through the reduction of outdoor air supply during winter operation. Reduction of the power of the air supply units to ensure additional savings with respect to electricity.

Reduction of the operating hours of all systems to the absolute minimum.

Disconnection of vacancies and lowering them to frost-free level if necessary.

Reduction of cooling and heating capacities – based on the assortment and the store, use of lower target temperatures in winter.

Lowering of night and weekend values.

General lowering of room temperature to 19 degrees C. Differentiation of the room temperature of store areas and ancillary areas, such as storage rooms, technical rooms, and temporarily used back offices.

Reduction of heatable surfaces, shutdown of hot air curtains in delivery zones, shutdown of heatable roadways, e.g., driveways to the parking deck (sand and salt instead of electricity).

Arrangement and agreement of quantifiable measures with operators, landlords, and tenants.

Continuous and periodic analysis of energy consumption (gas and electricity), evaluation, as well as adjustment and optimisation, if necessary.

Regular review and control of target values by facility management as a defined management priority.

Adaptation of the building control system and systemic use of the control technology and opportunities, e.g., the adaptation and optimisation of switching times, use of heat recovery, reduction of night cooling or off-peak times.

Shortening of maintenance intervals for heat pumps, filters, and evaporators to ensure the energy-efficient use of the systems (reduction of power consumption).

Reduction in operating and opening hours for food courts, time-limits, e.g., reduced to opening from 11:00 AM onward.
Lease provisions shall be required in this regard.
Consultation with tenants and operators on the use of energy-efficient production, such as switching from gas to induction stoves.

Analysis of energy efficiency with tenants and operators in relation to their business areas and operations.
Different energy requirements for the textile and gastronomy sectors, for example.
Implementation support with regard to optimised energy use.

Implementation and use of proven and ready-to-use energy-saving software solutions.

Information on the use of subsidies for the implementation of energy-saving measures, utilisation possibilities for targeted energy-saving measures within the company and in bilateral relationships with tenants and operators.
For example, KfW federal funding for energy and resource efficiency throughout the economy.

Measurement of the exact savings in gas and electricity will only be possible and useful once a comparative period has been established (comparison to 2021 is not possible as that was a coronavirus year).

2. Lighting / Electricity Measures

Conversion to green electricity in compliance with contractual obligations.

Examination of the potential use of free roof areas or usable areas for photovoltaic systems.

Reduction in the operation of usable escalators and moving walkways and elevators, taking into account traffic route safety and legal requirements.

Reduction in the operating times of ventilation systems and reduction in the air exchange rate, as far as possible under the lease agreement.	
Later start-up and earlier shutdown of chillers, depending on objective operational possibilities. Note: Refrigeration systems in food retail and catering areas must be usable without restriction.	
Reduction of illumination in common and public areas, depending on daylight conditions.	
Reduction of mall lighting, advertising sign lighting, pylons, use of timers and twilight switches.	
Shutting down of store and storefront lighting within the mall outside of business hours. Adjustment of the operating hours/time off between 10:00 PM and 7:00 AM.	
Significant reduction of Christmas lighting and decorations, elimination of moving elements, general elimination of ice-skating rinks and large artificially illuminated objects. Lighting of elements only permissible with LED lights.	
Conservation of energy during the brighter times of the year through the selective switching off of lighting groups.	
Elimination of illuminated facade design elements.	
Reduction of lighting in parking garages and parking areas. Closure of unused parking areas, especially in parking garages, and reduction of lighting in such areas to minimum security lighting.	
Shutting off of fountains / water features both indoors and outdoors.	
Retrofitting of presence switches and motion detectors in storage areas.	
Switching off of Wi-Fi during non-operating hours, both inside the centre as well as in the dedicated Wi-Fi areas of certain stores.	
Reduction of food court opening hours – see also Heating Measures.	
Supply of public areas in shopping centres with only cold water. Deactivation of electric boilers and electric hand dryers in restrooms.	
Continuous energy monitoring to ensure immediate response to deviations from target values and technical malfunctions, which is a mandatory function of facility management.	

The optimisation of time windows for logistics processes, with a view to energy efficiency, is recommended. With respect to food retail tenants (self-service hypermarkets), whether or not some of the processes involved in moving goods could be shifted to low-frequency morning or evening hours should be assessed. The ultimate goal should be the reduction of energy consumption via night shifts.

3. Ventilation Measures

It is safe to assume that a reduction in and the optimisation of the ventilation and air conditioning systems will have a significantly positive effect on the energy balance.

The proportion of outside air can/should be reduced to an acceptable level – to the hygienically required minimum level.

Reduction of the proportion of outside air in shopping centres is possible within the framework of the technical standards DIN/EN (standard supply of outside air 12-18 $m^3/m^2/h$).

Energy conservation by means of outdoor air reduction is possible within the framework of the above-mentioned DIN/EN to a maximum of 6 m^3/m^2h (taking into account EN 15251 – standard occupancy densities (individuals) and additional emissions caused by use and the building itself).

When optimising the fresh air and exhaust air rates, care must be taken to ensure that the ventilation system can fulfil its function as a safety device for smoke extraction management without restriction in the event of a fire.

Legal framework conditions shall be observed as follows: To the extent that lease agreements stipulate, e.g., in the standard building description, that a certain outside air rate must be maintained by the landlord when ventilating the leased areas, a reduction below that contractually agreed rate shall require an amendment to the agreement. Such an amendment shall only be made by way of a written addendum to the lease, provided that it has a term of more than one year, which is likely to be the case in the vast majority of instances, in order to comply with the statutory written form requirement of Article 550 (1) of the German Civil Code (BGB). Such effort cannot realistically be made by the owners for short-term, temporary adjustments to the outdoor air rate during the winter months of the year.

Alternatively, legislators can take action in that regard and, in accordance with the regulation in Article 3 EnSikuMaV, suspend the validity of an agreement in a lease for commercial space that is to be classified as a sales premises under building law, according to which the landlord must maintain a certain outside air rate when ventilating said space, for a certain period of time (i.e., during the heating period), and oblige the landlord to maintain a minimum outside air rate of 6 m^3/m^2h. Technical adjustments can then be made immediately. That would contribute to a significant reduction in electricity consumption.

Reduction of the air exchange rate must be differentiated by store and common areas through facility management and the adaptation of the building control system.

4. Door System Measures

The use of warm air blowers / door air curtains in the entrance areas of centres has been greatly reduced in use. Use is deemed appropriate in extreme freezing conditions; the air curtain forms a barrier at open doors and prevents cold outside air from entering.

Automatic doors of any design have been set for winter operation.
Doors open only two-thirds of the way.
The optimal mode of operation shall be to leave the system of wings in the drum door in operation even in winter, as it will ensure that there is only a slight exchange of flow between the inside and the cold outside air.

Tenants with exterior access shall be obliged to keep exterior doors closed.
In the case of automatic doors, the operating frequencies shall be adjusted accordingly.

5. Investment Measures

It can be assumed that the vast majority of retail properties are at a high technical level and already have a high energy-efficiency standard.

Investments are planned and implemented on a property-specific basis and with priority given to sustainability.
Sustainability measures are to be aimed at achieving high savings in operating costs.

Tenants and operators are advised to check whether Covid-19 subsidies can be used for investments in the field of energy efficiency.

Investments are to be made in modernised building control systems that feature expanded control and regulation technologies.
If necessary, the digitalisation of the building control system, including the measurement technology, shall be considered in order to ensure rapid energy monitoring and reaction to technical malfunctions as well as deviation from the target values.
In that regard, checking for possible subsidies from the KfW is recommended.
Such investments can be planned and form part of the company's budgeting and planning processes, and they are also dependent on the supply situation with respect to the corresponding equipment.

When installing revolving doors, the use of models that ensure a low level of air exchange is recommended. The same principle should be applied to the retrofitting and modernisation of existing swing doors.
This forms part of capital maintenance planning by facility management.

During maintenance and repair planning, the installation of additional insulation of cooling and heating pipes as well as the switch to water-saving fixtures is recommended.

The energy upgrading of existing elevators and escalators is recommended in cooperation with the manufacturers, to an economically feasible and possible extent.

Conversion of lighting to LED technology in areas in which such a change has not yet been made.
There is potential to be found in the outdoor area, particularly in terms of parking lot lighting.

6. Prospect-related Measures

Communication with / education and training of employees and managers to raise awareness of energy conservation and the sustainable use of resources, including training on ESG and the current energy crisis.
In this context, we are referring to continuous management tasks at all levels of the companies.

The activation and ongoing adaptation of gas emergency planning measures are the core tasks of the executives and responsible employees within facility management.
Weekly assessment of the situation, including measures and specifications for implementation at the properties.

As part of the sustainability strategy, charging stations for e-bikes and parking spaces for cargo bikes and rental vehicles are being planned for specific locations or have already been successfully installed.

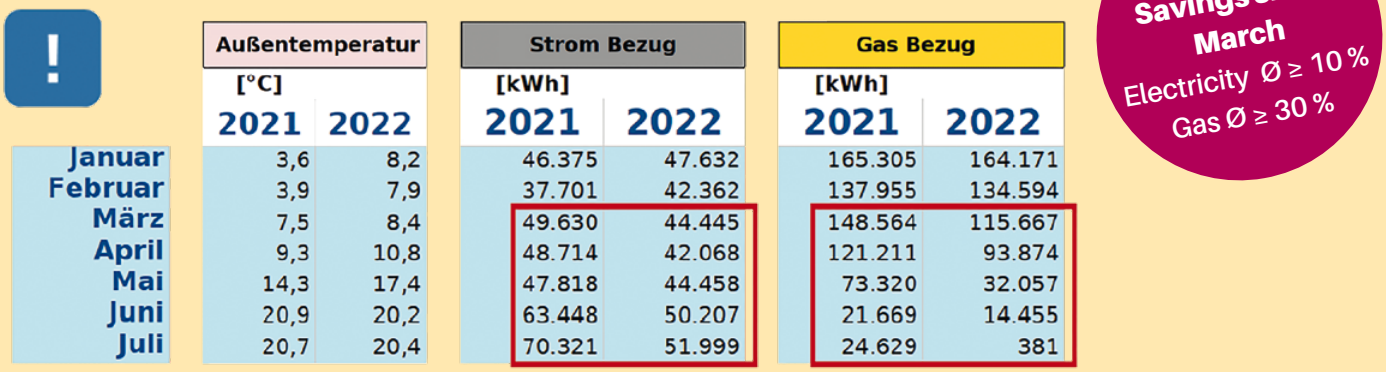
Established and result-oriented working groups on sustainability shall ensure the exchange of information on implemented measures. Results shall be captured and made available for use across all properties as standardised information for property managers.

Environment, Social, Governance (ESG) Module
Once an ESG working group has been successfully established, the measures implemented can be summarised in a company-specific database and made available for broad application.
The provision of information for the optimisation of energy management systems is included.

Green lease commitments have been integrated into new leases or lease extensions.

The Measures Have Had Quantifiable Effects

Illustration Using a Shopping Centre as an Example



	Außentemperatur [°C]		Strom Bezug [kWh]		Gas Bezug [kWh]	
	2021	2022	2021	2022	2021	2022
Januar	3,6	8,2	46.375	47.632	165.305	164.171
Februar	3,9	7,9	37.701	42.362	137.955	134.594
März	7,5	8,4	49.630	44.445	148.564	115.667
April	9,3	10,8	48.714	42.068	121.211	93.874
Mai	14,3	17,4	47.818	44.458	73.320	32.057
Juni	20,9	20,2	63.448	50.207	21.669	14.455
Juli	20,7	20,4	70.321	51.999	24.629	381

The targeted query and analysis of the status and effectiveness of the measures that have been implemented, or are in the process of being implemented for permanent or temporary energy savings illustrate expected effects in the range of 7 to 13%. That is in line with the expectations expressed by politicians and the business community.

In summary: When evaluating the available savings potential, it should be noted that the vast majority of retail properties are relatively newly built and have modern, highly efficient technology that features the corresponding energy efficiency. / Local and property-specific peculiarities shall be taken into account in the valuation. / A large number of measures have been implemented, and an equal number of measures are in the process of being implemented. / **Investments in further sustainable measures have already been approved and will be implemented with a long-term planning horizon. As a result, in some cases, success will occur at a much later date. Supply chain issues and the fraught situation in the construction industry shall be taken into account in this regard.**

The Landlord and the Tenant Must Come to a Fair Agreement

Lease agreements between the parties are of fundamental importance for all measures. Lease agreements should not be called into question. The aim is to establish temporary regulations that are mutually agreeable to all parties to the lease, are in line with economic stability, and are in the spirit of a sustainable business relationship.

Work Tools

Checklist for short-term, energy-saving measures for companies

Legend

Can be implemented at short notice / max. time required of 4 weeks

Organisationally technically-oriented

Minimal effort, minimal costs

Adaptation of Operational Processes

Create incentives for employees to save energy by means of recognition and small gifts.	○
Establish a task force for energy-related issues.	○
Deploy energy scouts / cooperate with other companies.	○
Establish energy efficiency and natural gas substitution targets.	○
Regularly communicate energy efficiency and natural gas substitution progress, as well as natural gas and electricity prices, to tenants and employees.	○
Use competitions designed to quickly generate more ideas for energy efficiency and natural gas substitution measures.	○
Switch off lights when rooms are not in use or in rooms with bright daylight.	○
Office/IT/Administration: Switch off electronic devices when not in use and refrain from the use of stand-by functions; use switchable power sockets.	○
Use only one monitor at office workplaces and reduce screen brightness, if possible.	○
Compressed air: Eliminate handheld blowers or limit their use.	○
Cooling: Adjust room air conditioning settings and check the temperature zones of rooms.	○
Space heating: Turn down radiators and vent regularly.	○
Space heating: Clear radiators cluttered with furniture and remove coverings.	○
Space heating: Keep room temperatures at lower levels and lower them to a minimum temperature of 19 degrees Celsius when not in use.	○
Room ventilation: Use shock ventilation instead of tilt ventilation.	○
Hot water: Reduce hot water consumption through the reduction of the supply of hot water in terms of time and quantity, e.g., by temporarily switching off instantaneous water heaters.	○
Hot water: Disconnect taps from central circulation and only offer cold water.	○
Prohibit the permanent opening of store doors and entrance systems in the retail sector.	○
Conduct real consumption analyses for energy optimisation.	○

- Offer energy efficiency inspections and conduct them with tenants.
- Lighting: Reduce illumination.
- Reduce light sources in warehouses.
- Compressed air: Reduce the mains pressure for compressed air systems.
- Compressed air: Reduce compressed air over the weekend and at night as a control measure.
- Cooling: Adjust the cooling temperatures.
- Cooling: Regulate cold water supply temperatures.
- Clean outdoor air conditioners.
- Reduce speed of ventilation and air conditioning systems.
- Adjust temperature in server rooms and clean rooms.
- Reduce the air exchange rate.
- Mobility: Use public transportation for unavoidable business trips.
- Arrange appointments via video conference as an alternative to in-person meetings.
- Reduce speed on highways.
- Lower the flow temperature and adjust the heating curve.
- Automatically reduce the heating temperature on weekends and at night.
- Use roller shutters and slats for the additional thermal protection of the shell of the building.
- Inspect, clean, and maintain boiler plants.
- Contract energy-saving services.
- Provide information obtained from energy management systems.
- Insulate fittings and flanges
- Insulate condensate tanks.
- Replace blow-off valves.
- Install electronic thermostatic valves.
- Switch off Wi-Fi during non-operational times.
- Close windows overnight; lower shutters overnight.
- Raise refrigerator temperatures by 2 degrees C, if necessary.
- Offer energy efficiency inspections and conduct them with tenants.

Work Tools
Facility Management: Gas Shortage Checklist

Relevant ↓	**Level 2 Measures**	*Implementation remarks* ↓
○	Limit the room temperature and switch off the hot water supply for wash basins in areas with pure office use to the applicable target values, in accordance with the Technical Rules for Workplaces. For offices, limit the room temperature to a maximum of 19 degrees Celsius; for stairwells and corridors, limit the room temperature to a maximum of 16 degrees Celsius.	
○	Check whether or not lowering the temperature at night and on weekends is possible and, if doing so is technically feasible and based on the use of the building, implement the measure.	
○	Check the operating times of the heating, air conditioning, and ventilation systems and reduce them to a minimum level.	
○	Adjust the thermostats to the set temperature and prevent them from being adjusted to higher temperatures.	
○	Check whether resetting the room air conditioning systems to the state that was normal prior to the pandemic is possible and reasonable. Running time, air volumes, and room occupancy, in particular, should be taken into account in this context.	
○	Check whether corridor lighting can be reduced while maintaining traffic safety.	
○	Check whether the room temperature in unused areas/rooms can be reduced to the lowest possible minimum (prevent the growth of mould).	
○	Ensure that no electrical equipment that has not been provided for official use consumes electricity within the facilities.	
○	Check whether the replacement of conventional light sources with LED technology is possible.	
○	Secure temporary savings in office space through home-office solutions.	
○	Switch off hot water within the buildings (restrooms and kitchenettes at the very least).	
○	Use sensor-controlled lighting in the restrooms.	
○	Switch off non-essential lighting (pillars, advertising, etc.).	
○	Check whether elevators can be switched off if there are several in the building and whether such action is reasonable for the tenant (no employees with possible disabilities).	
○	Check blinds systems for proper operation, in particular the central functions, in order to take advantage of the sunlight in the winter Many users in buildings have them turned off.	
○	Reinforce the basics, such as closing windows and doors and turning off lights and PCs/ monitors when leaving the office.	

◯	Make use of route planning (live navigation) and online meetings to eliminate unnecessary trips via company car.	
◯	Check whether flow temperatures can be lowered.	
◯	Check whether hot water buffer tanks are necessary. Reduce operating times or switch to electronic instantaneous water heaters.	
◯	Check whether thermal insulation on distribution systems or piping networks is intact or present.	
◯	Check whether hydraulic balancing has been carried out.	
◯	In the case of multi-boiler systems: Decouple and install sequential circuit, if possible.	
◯	Is regular inspection, cleaning, and maintenance of equipment conducted?	
◯	Check for possible compressed air generation; inefficient, improperly maintained, or leaking compressors/pipes lead to unnecessarily increased power consumption.	
◯	Switch off electrical equipment instead of using stand-by mode.	
◯	Cooling: Optimise evaporation and condensation temperature.	
◯	Adapt refrigerant to conditions.	
◯	Is heat recovery possible and reasonable?	

Cabinet decisions (from 1 September to 28 February) regarding where and how energy shall be conserved:

◯	Minimum Temperature in Leased Apartments The decree will suspend clauses in leases from September that require tenants to ensure a certain minimum temperature in leased premises by heating them. As a result, tenants will be permitted to use less heat if they want to conserve energy, thereby giving them additional leeway to save on heating costs as well. However, tenants shall still be obliged to "prevent damage to the leased property by means of appropriate heating and ventilation".	
◯	Heating of Private Pools Private pools, whether indoors or outdoors, shall no longer be heated using gas or electricity. An exception shall apply to swimming pools that are used for therapeutic applications. Pools at hotels, recreational facilities, or rehabilitation centres shall not be affected.	
◯	Maximum Temperature in Public Buildings In public buildings, work rooms may now only be heated to a maximum room temperature of 19 degrees Celsius. In the event that heavy physical work is carried out in the rooms in question, the maximum temperatures permitted shall be even lower. The recommended minimum temperature was previously 20 degrees, according to the Ministry. In public buildings, transit areas, such as corridors and foyers, large halls, and technical rooms shall no longer be heated, if possible. The new regulations expressly do not apply to clinics, nursing homes, or other social facilities.	
◯	Hot Water in Public Buildings Another cost-saving measure concerns washbasins in public buildings that are mainly used for hand washing. Boilers and instantaneous water heaters used to heat water at such washbasins shall be turned off unless hygienic reasons dictate otherwise. In places in which water is heated centrally, the temperature must be lowered, but only as far as is necessary to avoid the risk of the presence of legionella bacteria in drinking water. Exceptions to the above rules shall apply to schools, daycare centres, nursing homes, and hospitals, among others.	

Illumination of Buildings and Monuments
The illumination of buildings and monuments for purely aesthetic or representational reasons shall be eliminated. Short-term lighting during cultural events and public festivals shall be excluded. Safety and emergency lighting shall remain operational.

Illuminated Signs and Store Windows
Illuminated signs shall be turned off from 10:00 PM to 6:00 AM. An exception shall only apply if such lighting is necessary for the purpose of traffic safety, such as at railroad underpasses or bus stops. In such cases, they shall be treated as street lighting. The ban on night lighting shall also apply to store windows.

Store Entrances
In cases in which stores are heated, they shall not be permitted to keep their store doors permanently open between September and the end of February. This shall also apply to other entrance systems if heat is lost whenever they are opened. Exceptions shall only apply if the entrance or exit in question must be kept open in order to function as an escape route.

Temperatures of Rooms on the Premises of Private Companies
The ordinance does not require that room temperatures be reduced in offices, for example. However, according to the ministry, the regulation will enable companies to legally reduce heating levels in the commercial sector as well. That shall serve as the basis for self-imposed obligations on the part of companies as well as for company agreements on energy saving. The federal government's ordinance specifically stipulates that the maximum temperatures set for workrooms in public buildings shall be applied as the minimum temperature for commercially used rooms.

Information Obligations with Respect to the Tenants
Gas suppliers and owners of larger residential buildings shall be obliged to inform their customers or tenants at an early stage about the expected energy consumption, associated costs, and potential energy-saving measures. That should occur by the start of the heating season at the latest.

Monitoring of Heating Systems and Energy Consumption
Additional measures are scheduled to go into effect on 1 October. They will affect public, private, and corporate buildings. Among other things, a mandatory annual heating inspection is planned for buildings equipped with gas-powered heating systems. The so-called hydraulic balancing will become mandatory for large buildings that are centrally heated via natural gas, if such action has not already been taken. According to the Ministry, inefficient, unregulated heating pumps in buildings with natural gas heating shall be replaced as they are energy guzzlers. Companies with energy consumption of 10 gigawatt hours or more per year will be required to take energy efficiency measures, provided that they have already undergone an energy audit that breaks down consumption and savings opportunities.

Level 3 Measures
(Individual Consideration with the Customer)

Implementation of Prescribed Temporary Shutdowns

Switch-off and switch-on functions, incl. all manual interventions in the building services equipment

Implementation of Mandatory Extended Shutdowns

Implementation and Vacancy Management

GERMAN COUNCIL OF SHOPPING PLACES

ZIA

DOCUMENTATION

OVERVIEW OF INITIATIVES TAKEN BY THE RETAIL PROPERTY INDUSTRY TO REDUCE ENERGY CONSUMPTION

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