

ENVIRONMENTAL STATEMENT 2018

DATA BASIS 2017



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1. FOREWORD

Dear reader,

for nearly 430 years, the Staatliches Hofbräuhaus in München has been brewing according to the Bavarian Purity Law. This unique consumer protection law from 1516 is the inviolable seal of quality for the purity and quality of the beers. Only malt, hops, water and yeast may be used as raw materials, because beer is a natural product. Arising from this claim is our commitment to a careful and sustainable handling of the environment.

In our company's philosophy economic and ecological interests do not compete. On the contrary, the brewery strives for a balance between long-term economic success and a continuous ecological improvement process. The preparation of an Environmental Statement and the assessment according to the EMAS regulations are important components of this plan. This Environmental Statement defines the objectives of our corporate environmental policy, which are borne by board, management and employees.

With the construction of the brewery in Munich-Riem in 1988, significant and clearly visible successes in environmental protection efforts were realized. Continuous modernization measures have established and stabilized our environment friendly production process by which we are able to grant consumers top product quality.

Whether it is photovoltaics, heat recovery from air and refrigeration compressors or the implementation of a complete mail archive to reduce paper consumption - the measures to reduce



Foto: Oliver Rauh

CO₂ emissions at the Staatliches Hofbräuhaus in München are not limited to beer brewing.

In fact, for more than fifteen years, we have been examining all activities and processes related to the production and distribution of our beers. This begins already in the field where our raw materials grow and reaches all the way into the glass of our customers.

As a state brewery, we feel particularly obliged to the environment and our customers to take responsibility for better climate protection and to stand as a role model for other companies.

A handwritten signature in black ink, appearing to read 'Michael Möller', written in a cursive style.

Dr. Michael Möller

2. COMPANY INTRODUCTION

2.1 Short Introduction

NAME:	Staatliches Hofbräuhaus in München
ADDRESS:	Hofbräuallee 1, 81829 München Phone: +49 89 921 05 0 Telefax: +49 89 90 64 26
HOMEPAGE:	www.hofbraeu-muenchen.de
FISCAL YEAR:	Calendar year
DIRECTOR:	Dr. Michael Möller
ENVIRONMENTAL OFFICER:	Sebastian Utz
EMPLOYEES:	131 (incl. 6 trainees; as of December 31, 2017)
BEER OUTPUT SELF-PRODUCTION:	336,278 hl (2017)
TURNOVER:	Approx. 49 million euros (2017)

The industry standard reference size for numerous details in this Environmental Statement is the hectoliter. 1 hl = 0.1 m³ = 0.852 bbl (U.S.)



2.2 Our Story

- 1589** Establishment of the Hofbräuhaus
- 1602** Hofbräu brews wheat beer
- 1607** Relocation of the brewery to the Platzl
- 1614** Hofbräu brews the first Munich Maibock
- 1810** Birth of the Oktoberfest
- 1828** The Hofbräuhaus becomes public
- 1879** The HB crown logo becomes a registered trademark
- 1896** Relocation of the brewery to the Wiener Platz
- 1897** Reconstruction of the Hofbräuhaus am Platzl
- 1988** New construction of the brewery in Munich-Riem
- 1998** Start of the des EMAS process (Eco Audit)
- 1999** The first international Hofbräuhaus opens in Dubai
- 2001** EMAS initial validation
- 2003** Initial membership of the Environmental Pact in Bavaria
- 2003** The first Hofbräuhaus with pub brewery opens in the USA in Newport, Kentucky
- 2004** Establishment of a true to the original copy of Hofbräuhaus München in Las Vegas (USA)
- 2007** Brewing wheat is obtained from water protection areas
- 2007** Winner of the Superbrands Award
- 2007** 400 years Hofbräuhaus am Platzl
- 2009** 100 percent green electricity is used
- 2009** Opening of the Hofbräuhaus Pittsburgh in Pennsylvania, USA
- 2011** Determination of greenhouse gas emissions during the beer production process from field to glass as part of a diploma thesis
- 2011** Brewery expansion to 300,000 hl per year
- 2012** "From old to new" – Crate recycling
- 2012** Introduction of a new bottle washing machine
- 2013** Electric car is added to the pool
- 2013** Hofbräuhaus Chicago opens including its own local brewery
- 2013** Brewery extension in the fields of logistics and pressure tank cellar
- 2014** Opening of Hofbräuhaus restaurants in Cleveland and Columbus, Ohio (USA), both including own local breweries
- 2015** Photovoltaic conversion is used to generate electricity
- 2015** Conversion to LED technology begins
- 2015** Latin America's first Hofbräuhaus with an own brewery opens in Belo Horizonte, Minas Gerais (Brasil)
- 2016** Member of B.A.U.M. e.V.
- 2016** Construction of Hofbräuhaus Saint Petersburg (Russia)
- 2017** Hybrid car is used for sales service
- 2017** Pilot project on greenhouse gas compensation in moors in Bavaria
- 2017** Construction of new machines in the dry areas of the filling plant
- 2017** Opening of Hofbräuhaus Kemorowo (Russia)
- 2018** "HB is for Honeybees", sustainability project for our trainees
- 2018** Opening of Hofbräuhaus St. Louis, Missouri (USA)

2.3 The Raw Materials and the Brewing Process

MALT: Barley and wheat grains are germinated with water. The sprouted grain is dried and from this point in time referred to as malt. The longer the malt is kilned in different temperature stages, the darker it gets in color, which will later be crucial for the color intensity and taste of the beer. On average, we buy about 6,200 tons annually from regional Bavarian malting plants.

WATER: At Hofbräu München we use only brewing water from our deep well. From a depth of 150 meters, water is extracted, which lies directly below the multilayered Munich gravel layer and is therefore optimally protected against pollution. This is not normal groundwater, but water from the Pleistocene, which is around 15,000 years old and comes from the Ice Age in the Alpine foothills.



HOPS:

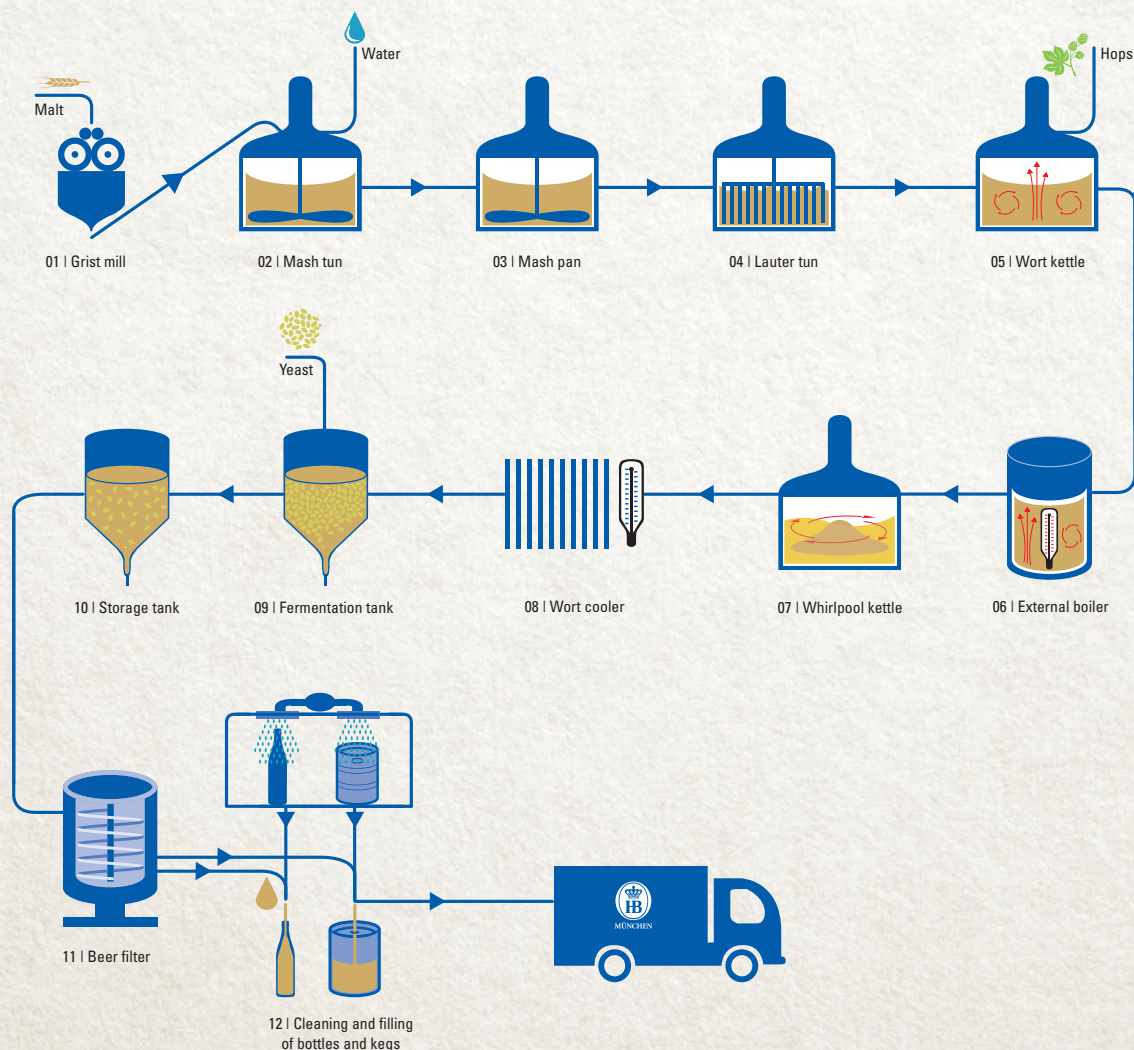
The pleasant bitterness of the beer is provided by the hops, which are added as a bitter seasoning during the brewing process. Hofbräu München sources aroma and bitter hops from Hallertau, north of Munich, the world's largest contiguous hopgrowing region.

YEAST: It is responsible for

alcoholic fermentation in beer production. In this process, the sugar dissolved from the malt is converted into alcohol and carbon dioxide in a natural metabolic process - two important constituents of the beer. Hofbräu München only uses yeast from its own „yeast purebreeding plant“.

Before our brewers can process the malt in the brewhouse, it must be ground in the grist mill. Then the malt meal in the mash tun is mixed with water (in the jargon: „mash“) and heated to dissolve the starch of the malt and degrade it to fermentable sugars. In the lauter tun, the husks (hulls of the barley grain) and other insoluble ingredients are separated from the „wort“. In the wort kettle, hops are added, and the wort is boiled. The constituents of the hops are dissolved, enzymes inactivated and the original wort (concentration) adjusted. This process is under the ongoing control of the brewmaster, because quality must be tested. In the whirlpool, the solids / turbidity material are separated from the wort by means of rotation. On the way to the beer cellar, we cool the wort

to pitching temperature, depending on the type of beer. The fermentation process begins in the fermentation tank with the addition of the brewer's yeast: The metabolism of yeast converts fermentable sugars of the wort into alcohol and carbonic acid. Fermentation with bottom-fermented yeast takes about 6 to 7 days at temperatures between 7 and 9° C. The term „bottom-fermented yeast“ comes from the fact that the yeast settles on the bottom. Top-fermented yeast ferments the wort in 4 to 5 days at 18 to 20° C and then rises to the surface. After the main fermentation, the yeast is removed from the tank. The resulting „young beer“ is stored at about 0° C for several weeks until maturity. After storage, the bottom fermented beer is filtered and put into pressure tanks for bottling.



2.4 Our Beers











From the historical beginnings of brown, white and bock beers, our brewmasters have developed a convincing assortment of traditional beers, which is distributed by the brewery „Staatliches Hofbräuhaus in München“ under the umbrella brand „Hofbräu München“.

Our strength lies in the bottom-fermented varieties such as Hofbräu Original and Hofbräu Dunkel. To celebrate the tradition of 500 years of Purity Law we added the traditional and tasty Hofbräuhaus Hell to our program in 2016. In addition, there are the seasonal specialties Hofbräu Oktoberfestbier and Hofbräu Maibock as well as Hofbräu

Sommer- and Winterzwickel. Our product range is supplemented by the top-fermented specialties Münchner Weisse and Hofbräu Schwarze Weisse. With over 50 percent of the sales, Hofbräu Original is our number one in the assortment. The refreshing and tart Hofbräu Original embodies the special character of Munich beers like no other beer and carries it all over the world.

With the seasonal specialties, we emphasize cultural diversity and offer beer lovers special beers with a special atmosphere. A mix that is well received, because seasonal beer specialties make you thirst for beer.



	 20 x 0.5l Crate (returnable)	 24 x 0.33l Crate (returnable)	 * 20 x 0.5l Carton (non- returnable)	 * 24 x 0.33l Carton (non- returnable)	 * 6 x 0.33l Six-pack (non- returnable, open carrier)	 0.5l Can (non- returnable)	 5l Can (non- returnable)	 30l Keg	 50l Keg	 30l Party keg (wood finish look)	Tank
Hofbräu Original	●	●	●	●	●		●	●	●	●	●
Hofbräu Dunkel	●		●		●			●	●		
Münchner Weisse	●		●	●	●	●	●	●	●		
Hofbräu Schwarze Weisse	●		●				●	●	●		
Hofbräu Maibock	●	●			●			●	●		
Hofbräu Urbock								●			
Hofbräu Doppelbock				●				●	●		
Hofbräu Winter Spezial					●		●		●		
Hofbräu Delicator									●		
Hofbräu Sommerwickl naturtrüb	●							●	●		
Hofbräu Oktoberfestbier	●		●	●	●		●	●	●		●
Hofbräu Winterwickl naturtrüb	●							●			
Hofbräu Kristall Weisse	●										
Hofbräu Weisse leicht	●										
Hofbräu Weisse Alkoholfrei	●										
Hofbräu Alkoholfrei	●										
HB Pure		●									
Hofbräuhaus Hell	●										

*) Non-returnable products are only available for export markets. Additional special packaging products are not included in this overview.

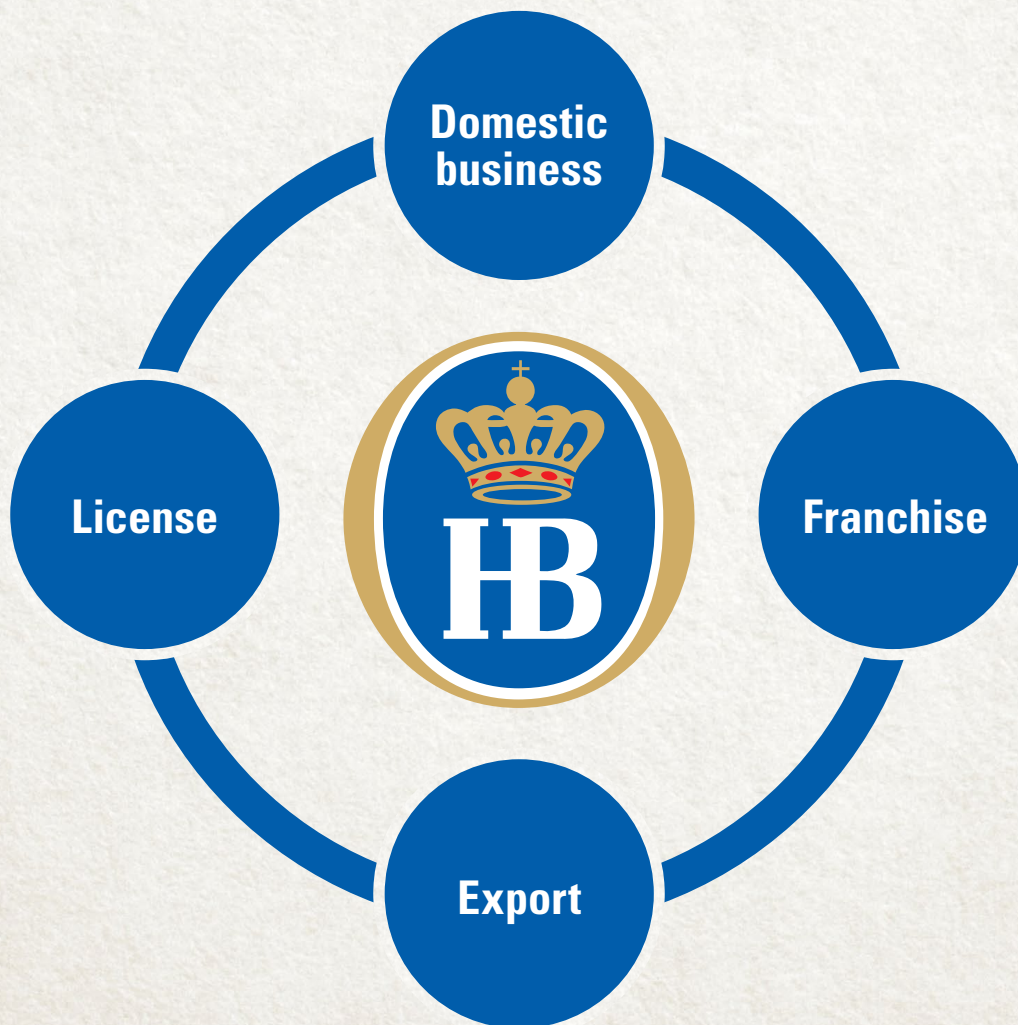
2.5 Our Areas of Business

Due to its unique history, the Staatliches Hofbräuhaus in München has since developed into an internationally operating brewery. In addition to domestic business and direct export, our main business areas are the licensing and franchising of the Hofbräuhaus concept.

Hofbräu München is an internationally well-known high-quality brand that offers consumers not only top quality beers but an additional feeling of

sophisticated lifestyle. In our opinion, this is one of the few ways to successfully assert yourself in the increasingly competitive beer market and to expand existing market shares.

The strategy of the company is qualitative growth in the upscale price segment of the trade as well as in the young and traditional event gastronomy. Accordingly, Hofbräu München also shapes its distribution policy domestically.



3. BUSINESS GOALS

Our goal – the goal of the executive board, management and employees – is to secure the economic success of the Staatliches Hofbräuhaus in München in a sustainable way.

In the dynamic market of the beverage industry, the competitiveness of the company and the successful positioning of the brand are the essential criteria for healthy growth and thus secure a sustainable future. As a company of the Free State of Bavaria, we see the Staatliches Hofbräuhaus in München as having a special public relations role: We want to preserve our tradition and historical knowledge in conjunction with modern business planning and production technology.

The Staatliches Hofbräuhaus in München produces high-quality beers using environmentally friendly processes. In recent years, consumer

habits have changed towards more product and package diversity. Tendencies that are not always in line with market requirements and environmentally friendly. For this reason, we evaluate and measure these developments not only with economic but also with ecological criteria and align our market decisions accordingly.

In addition to the national market, direct export, license and franchise business are based on these decisions. We also make sure that resources, such as raw materials and energy, as well as auxiliary materials, are used sparingly and that our entire production process is continuously improved. When selecting containers, packing and packaging materials, we orientate ourselves to the market, to the material properties and the possibilities of utilizing and recycling the residual materials.

Our beer output (hl)



4. ENVIRONMENTAL MANAGEMENT

4.1 Environmental Policy and Strategy

We have made it our mission to produce beer with the highest possible quality while taking environmentally relevant criteria into account. Therefore, our company has committed to the continuous improvement of the brewery's environmental situation as well as the reduction of pollution, as far as it is economically possible. Additionally, we aim to meet and outdo official environmental regulations as well as individual binding obligations.

With our strategy of avoiding, reducing and compensating, we want to produce our beers in a climate-neutral and sustainable manner over the long term. The order is crucial, the emphasis of the measures must be on the avoidance of CO₂ emissions.



Our environmental policy defines the frame in which we define our environmental goals and therefore adheres to the following principles:

- We want to continuously develop the ecological improvement process.
- We commit to continuously improve our environment management system.
- Through the economical use of resources, supplies and auxiliary materials we strive to steadily reduce environmental pollution.
- We want to reduce or compensate for the greenhouse gas emissions associated with our beers in a transparent and verifiable manner.
- We constantly monitor all facilities and operations to assess the environmental impact and prevent accidental environmental damage.
- We promote environmental awareness among employees through regular information and training.
- We include contractual partners such as suppliers and service providers in environmental policy.
- We use brewing water from our own deep wells responsibly and always protect and maintain its high quality.
- We use the brewing water from our own deep wells responsibly.
- With a detailed waste management concept, we aim to reduce our residual waste volumes and promote the recycling of materials.
- We conduct an open dialog with the public.

4.2 Environmental Goals 2016 – 2019 & their Status

The following environmental goals are to be achieved by 2019. The percentages mentioned always apply to the reduction of specific consumption (i.e. consumption per hectoliter of self-produced beer) of the reference year 2015.

ENERGY/EMISSIONS

1. The specific heat consumption is to be reduced by 4.0%.

Compared to the 2015 value we have reduced specific heat consumption in 2017 by -3.2%. By 2019 we plan to have a reduction of -4.0%.

2. The specific power consumption is to be reduced by 2.0%.

With an increase of 1.1% compared to the 2015 value, we have not yet been able to achieve this aim. However, our original goal of a -2.0% reduction of specific power consumption by 2019 remains valid.

The fermentation and storage cellars have already been converted to LED. By 2019, the entire filling area will be equipped with LED lighting. Additionally, we pursue the conversion to LED technology in the administration building.

The replacement of electric forklifts with gas forklift trucks has been carried out based on energetic and application-relevant aspects: For long distances, four gas forklifts are in use. Additionally, there are ten electric lift trucks.

3. The operational truck diesel consumption in l/100km shall continue to decline.

With a decrease of -2.1% this target was achieved the second year in a row. A new tour optimization program has been in use since 2016.

4. Operational CO₂ emissions are to be reduced by 30%.

Compared to the measurements in 2011 we have so far reduced our total Scope 1 emissions by -18.5%. To the reduced CO₂ emissions in 2017 an equivalent emission value of 3.92t must be added due to the leakage of a staff cafeteria fridge.



RESOURCES

5. For the first time, 100 tons of CO₂ emissions p.a. are to be compensated for by Bavarian climate protection projects.

In 2017, our cooperative pilot project with the Bayerischer Naturschutzfonds (Bavarian Nature Conservation Fund) helped to carry out the rewetting of the "Weitmoos südlich Schleinsee" moor area. This measure is certified to save 1,115 t of CO₂ equivalents over the upcoming 50 years. That is a compensation of 22.3 t of CO₂ per year. Due to these actions Bavaria's Environment Secretary Ulrike Scharf presented Hofbräu München with a certificate on so-called "moor benefits". We have high demands for our projects and continue our search for suitable authentic projects in Bavaria that will make our compensation goals become reality.

6. The caustic soda consumption is to be reduced by 15%.

By working on the caustic solution metering, we were able to reduce our consumption of caustic soda in 2017 by -7.2%. As a result, half of the set target of -15% has been reached. Our plan is to achieve this target by continuing to optimize our plants.

7. The paper consumption is to be lowered by 100.000 sheets.

Instead of the planned reduction there was an increase of 15.6%.

8. Raw materials and supplies are to be continuously converted to more ecological articles.

Since 2007, we have been sourcing the brewing wheat for our wheat beer specialties from water

conservation areas in Lower Franconia. We have agreed with the farmer on a sustainable contract that guarantees price certainty for both sides and counteracts world market speculation. By 2019, we want to extend this economically sustainable model to malting barley.

An initiative to start a science project on „climate friendly cultivation of brewing wheat“ failed due to our project partner.

ORGANIZATION

9. Employees and suppliers should be motivated to reduce indirect environmental impacts associated with HB.

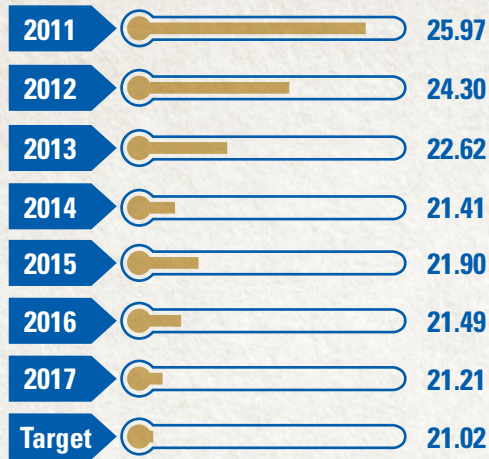
In 2016, HB München became a member of the B.A.U.M. e.V., the Federal German Working Group for Environment-Conscious Management. We successfully participated in the „Stadtradeln“ initiative in Munich with our Hofbräu München team. As part of the project "mobil gewinnt" (mobile wins) we have received a consultation on operational mobility management that has led to further project ideas.

WASTE

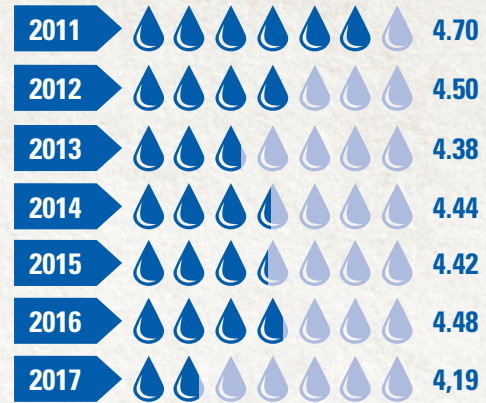
10. Non-recyclable municipal waste (specific residual waste) should be reduced by 25%.

In 2016, we already managed to realize a significant reduction. This means that even though various building sites have produced waste, we have currently achieved our target of a -25% reduction.

Spec. Heat Consumption (kWh/hl)



Spec. Water Consumption (hl/hl)



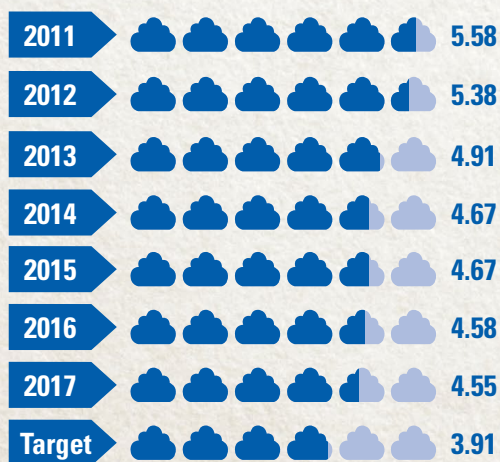
Spec. Power Consumption (kWh/hl)



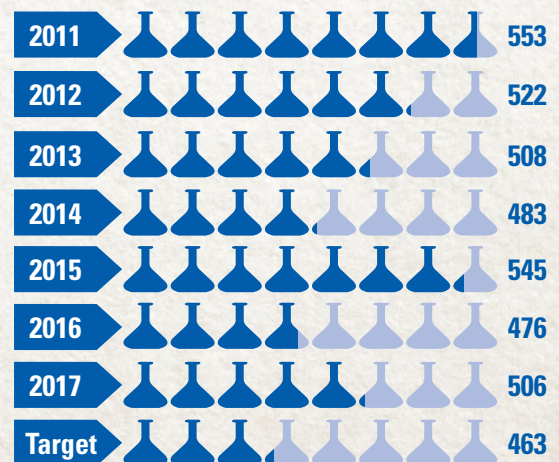
Conveyor Lubricant Usage (g/TFI)



CO₂-Emission (kg/hl) - Scope 1



Caustic Soda Consumption (g/hl)



4.3 Environmental Program 2016 – 2019

Environmental target reference	Measure	Status
ENERGY		
No. 1, 4	Reduction of the evaporation rate after brewhouse conversion	2019
No. 1, 2, 4	Renovation brewhouse (grist mill, lauter tun, vapor condenser and energy storage)	2019
No. 1, 2	Regular participation in the IGS operation comparison	<input checked="" type="checkbox"/>
No. 1, 2	Introduction of energy monitoring with expansion of measuring points / meters for electricity (2016/2017) and steam (2018)	Electricity <input checked="" type="checkbox"/> , steam outstanding
No. 1, 2	Planning work CHP (load profile determination after brewhouse conversion)	2019
No. 1, 2, 4	Construction of a cogeneration unit	2020
No. 1, 2	Construction of a new KEG plant with building with possible use of the old plant for disposable KEG for export	Planning until 2020
No. 1, 2	Realizing rooftop greenery on top of the administration building for heat insulation	Examination 2018
No. 2	Installation of a new rotary screw air compressor	<input checked="" type="checkbox"/>
No. 2	Installation of a compressor for decentralized compressed air supply of the lauter tun	<input checked="" type="checkbox"/>
No. 2	Construction of new dry section in the bottling plant (= packaging plant)	<input checked="" type="checkbox"/>
No. 2	Conversion of the lighting to energy-saving LED systems in the administration building and the service road between brewhouse and bottling plant	Road <input checked="" type="checkbox"/> , building in work
No. 2	Conversion to LED lighting in fermentation and storage cellar	<input checked="" type="checkbox"/>
No. 2	Conversion to LED lighting in the entire bottling plant	2018
No. 2	Examination of the construction of vertical PV systems on the HB buildings	<input checked="" type="checkbox"/>
No. 2	Examining the possibility of PV systems on the administration building rooftop	After greenery
No. 2	Exchange of 4 electric forklifts with gas-powered forklifts	<input checked="" type="checkbox"/>
No. 2, 4	Conversion of postal and parcel delivery to „Go-Green“	In examination
No. 2, 6, 8	Test phase for the installation of a diatomaceous earth-free filtration plant to save resources and water	<input checked="" type="checkbox"/>
No. 2, 6, 8	Installation of a diatomaceous earth-free filtration plant	2019
No. 3	Exchange of air conditioning system to increase energy efficiency and environmental friendliness	<input checked="" type="checkbox"/>
No. 3	Introduce route optimization with a new program LOGO3	<input checked="" type="checkbox"/>
No. 3, 4	Conversion of truck fleet to EURO-6	Until 2019

Environmental target reference	Measure	Status
RESOURCES		
No. 3, 4	Reduction of CO ₂ emissions of the vehicle fleet through new solution for the delivery service for pensioners	<input checked="" type="checkbox"/>
No. 4	Purchase of new refrigerated trailers with environmentally friendly refrigerant as replacement for cooling cells	Ongoing
No. 4	Collection of experiences for the E-truck use together with the Hopfsterei	<input checked="" type="checkbox"/>
No. 5	Development of a pilot project for climate gas compensation in Bavarian peat bogs with the „Bayerischer Naturschutzfonds“	<input checked="" type="checkbox"/>
No. 5	Development of possibilities of CO ₂ compensation through regional project alternatives on moor renaturation	2019f.
No. 6	Optimization of the adjustment of the new NaOH concentrate dosing system and the minimum cleaning concentration requirements	2018
No. 7	Introduction of the electronic signature of the truck driver on the touch screen and elimination of the internal receipts	<input checked="" type="checkbox"/>
No. 7	Introduction of the electronic ordering system for customers	
No. 7	Introduction of the default setting „Duplex Printing“ for double-sided printing	<input checked="" type="checkbox"/>
No. 7	Conversion of document shipping to PDF shipment	
No. 7	Request for digital applications on job advertisements	<input checked="" type="checkbox"/>
No. 8	With the regional malthouse and regional farmers from the „south of Munich“, the first 20% of the barley malt requirement will be covered by longterm contracts with stable yields for the farmers	<input checked="" type="checkbox"/> As of the 2018 harvest
No. 8	HB takes the initiative for a research project „Climate friendly brewing grain cultivation in Bavaria“ at Bavarian universities	First contact 2017 <input checked="" type="checkbox"/>
No. 2, 9	First ever test of hydrogen-powered forklift trucks in a brewery and filling station	<input checked="" type="checkbox"/> , not cost efficient
No. 9	Testing of a hydrogen-powered vehicle for the fleet	<input checked="" type="checkbox"/>
No. 9	HB is examining the integration of its hop suppliers into the sustainability system for the German hop production of the Hopfenring	2018
No. 9	Installation of a chain hoist for barrel transport at the chlorine dioxide plant and closed dosage of glycolic acid	<input checked="" type="checkbox"/>
No. 9	Participation in the „Stadtradeln“ project in Munich with company team „Hofbräu München – HaBe die Wadln“	Since 2017
No. 9	Offer trainees opportunity to become trained as energy scouts at IHK München	2018

Environmental target reference	Measure	Status
ORGANIZATION		
No. 9	Development of HB criteria for ecological supplier evaluation	Ongoing
No. 9	Introduction of the ecological supplier evaluation during a general, new supplier evaluation system	Ongoing
No. 9	Optimizing the use of BMW i3 electric vehicle by HB employees	Ongoing
No. 9	Offer sustainability training for trainees	<input checked="" type="checkbox"/>
No. 9	HoneyBees and wild bee hotel as sustainability projects for our trainees	HoneyBees <input checked="" type="checkbox"/> , Wild bees 2018
No. 9	Introduction of a digital suggestion box also for employee sustainability proposals	In planning

Environmental target reference	Measure	Status
WASTE		
No. 10	Accurate marking of waste and recycling containers	<input checked="" type="checkbox"/>
No. 10	Training employees who dispose of large amounts of waste for correct bin depositing	Ongoing
No. 10	Installation of collection containers for hard plastics	
No. 10	Installation of a recycling box for used batteries in the entrance area of the administration	<input checked="" type="checkbox"/>

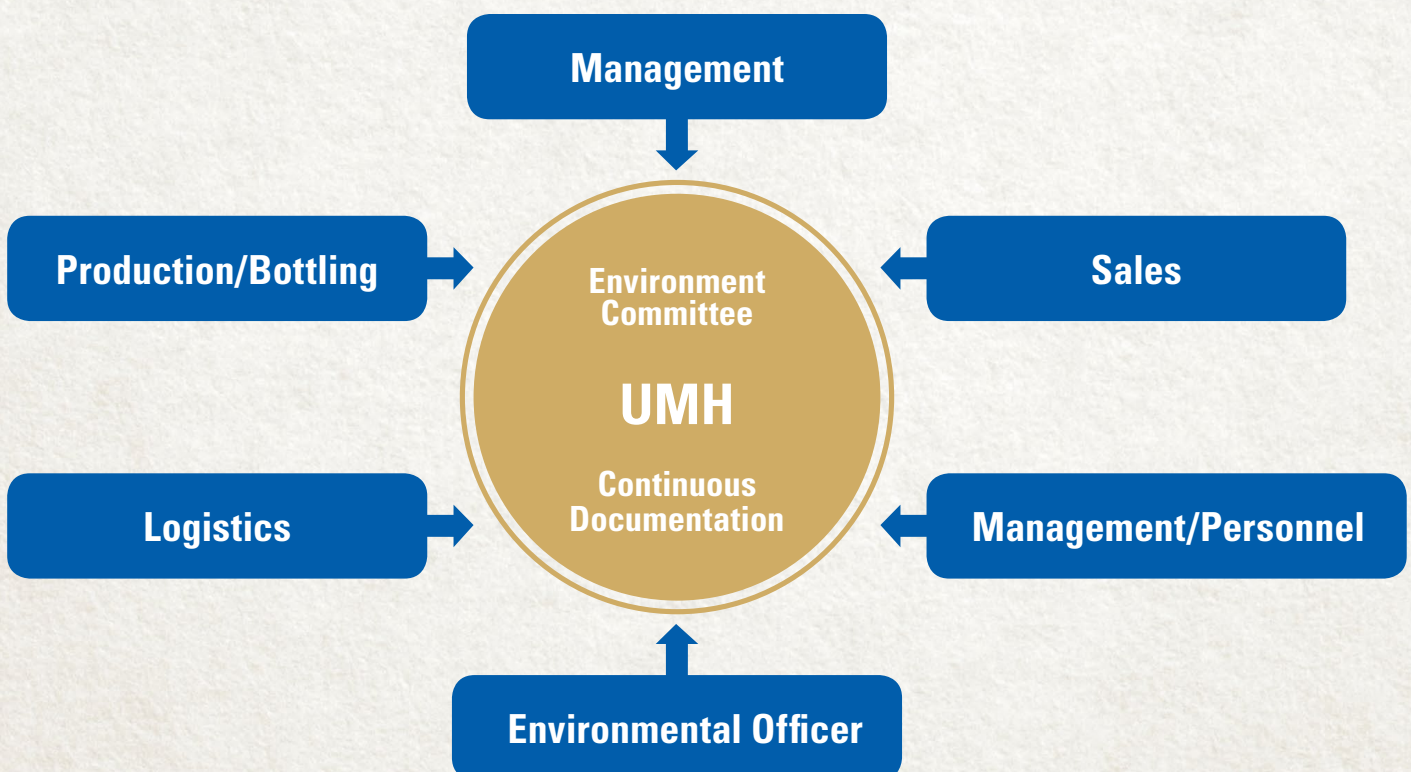


4.4 Environmental Management System

The environmental management system is the necessary basis for meaningfully working out the prerequisites for the fulfillment of our environmental policy. Here we define responsibilities, competencies and procedures for the implementation of corporate environmental protection. Our representative for environmental protection in the executive management of Staatliches Hofbräuhaus is Sebastian Utz, Dipl. Ing. for brewing. We document the entire environmental management system through the Environmental Management Manual (UMH - Umwelt-Management-Handbuch). With annual audits and system

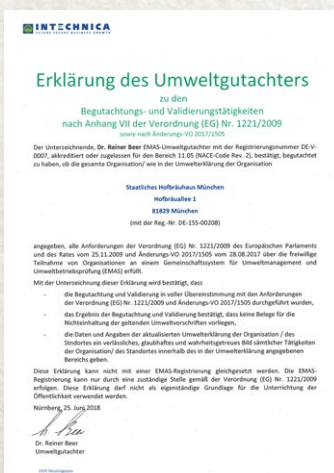
evaluations, we review the environmental management system as part of our environmental audit. The decisions of the management, department heads, and each individual employee of the company define the guidelines and operating procedures for ecological farming in the brewery.

By making suggestions, our employees significantly contribute to the continuous improvement process. The environmental committee, which consists of employees meets regularly and discusses targets, measures and supplements in the implementation of the UMH.



ORGANIZATIONAL CHANGES

During the forthcoming expansion measures, which have meanwhile been implemented, the production capacity of the brewery approved under the Federal Immission Control Act was increased to 410,000 hl. We have integrated our entire environmental management system into the company's data processing system. The input-output balance was structured as an „environmental database“. In accordance with the new European F-Gas Regulation, the refrigeration cadastre, which was revised in 2016, is continuously being expanded. In 2016, we joined the B.A.U.M. e.V., the Federal German Working Group for Environment-Conscious Management. Since 2017 we have kept a company journal by which we continuously monitor our cooling towers, as is requested by the 42nd Federal Pollution Control Act. We thereby make sure that we cannot endanger anyone by spreading legionella.



TECHNICAL STRUCTURAL CHANGES

First and foremost, it should be noted that the enormous improvements in our environmental situation could be achieved essentially with unchanged equipment. Following the completion of the major extension works in the loading and storage area and the major investments in the new bottle washing machine and new boiler, only a few smaller investment measures were made in 2015/16. In 2017, we were able to successfully commission a new dry section in the bottling plant. Besides of a much higher efficiency this has led to an increased usage of belt lubricant due to longer conveyor belts. The new gas station for gas-driven forklift trucks has been put into operation. In its construction we made sure to comply with the portfolio protection of trees at the site. An out-of-date air conditioning system that used a dangerous refrigerant was replaced by a new one. The complete modernization of the entire compressed air system was completed with a new, continuously variable screw compressor. This not only saves a lot of electricity, but also achieves a higher temperature level of heat recovery. Our policy in the brewery is: „Continuous constructional improvements“ and so the planning for an investment program in brewhouse, fermentation and storage cellar in the amount of approx. 15 million € in the next 3 years began.

5. ASSESSMENT OF THE MOST IMPORTANT ENVIRONMENTAL IMPACTS

The environmental impacts described below are continuously determined by a comprehensive system of inhouse data collection. An equally continuous and systematic monitoring of environmental legislation examines the legal relevance of individual environmental aspects. The significance or relevance of the individual environmental aspects is determined by a traffic light evaluation procedure (red-yellow-green). The assignment to these assessments is based on the experience of the environmental officers of the brewery and the environmental consultants involved. The most important direct and indirect environmental impacts of the Staatliches Hofbräuhaus in München are

shown below. Until 2016 the number of kilowatt-hours used of our primary energy source natural gas was calculated using the number of cubic meters of natural gas purchased and the lower calorific value (old calculation). Thanks to the modernized data collection in 2017 we can indicate the actual number of kilowatt-hours used (new calculation). For this reason the tables and diagrams used in chapters 5.1. Energy Usage and Efficiency and 5.2. Emissions will show both data, from the old as well as the new calculation. Beginning with the next EMAS period only the new calculation will be used.

DIRECT ENVIRONMENTAL IMPACT

5.1 Energy Usage and Efficiency

Primary energy consumption in the current EMAS period – old calculation

	2017	2016	2015
Heat – gas (old)	7,133,455 kWh	7,114,450 kWh	7,420,397 kWh
Heat – heating oil	0 kWh	0 kWh	0 kWh
Power	3,706,214 kWh	3,650,505 kWh	3,694,318 kWh
Total production (old)	10,839,669 kWh	10,764,955 kWh	11,114,715 kWh
Diesel: trucks & cars(*)	758,479 kWh	756,438 kWh	788,956 kWh
Gasoline	14,360 kWh	5,931 kWh	0 kWh
Total logistics	772,839 kWh	762,372 kWh	788,956 kWh
Total (old)	11,612,508 kWh	11,527,324 kWh	11,903,671 kWh

(*) The internal logistics are partly done with gas and partly with electric forklifts.

old: Until 2016 the heat consumption data was calculated with the cubic meters purchased and lower calorific value.

Primary energy consumption in the current EMAS period – new calculation

	2017	2016	2015
Heat – gas (new)	7,926,061 kWh	7,904,944 kWh	8,244,886 kWh
Heat – heating oil	0 kWh	0 kWh	0 kWh
Power	3,706,214 kWh	3,650,505 kWh	3,694,318 kWh
Total production (new)	11,632,275 kWh	11,555,449 kWh	11,939,204 kWh
Diesel: trucks & cars(*)	758,479 kWh	756,439 kWh	788,956 kWh
Gasoline	14,360 kWh	5,933 kWh	0 kWh
Total logistics	772,839 kWh	762,372 kWh	788,956 kWh
Total (new)	12,405,114 kWh	12,317,821 kWh	12,728,160 kWh

new: From 2017 on the kWh that were actually used will be registered.

The total energy consumption of 11,612,508 kWh is divided into 10,839,669 kWh for production (≈ 32.2 kWh/hl) and 772,839 kWh (≈ 2.30 kWh/hl) for

internal logistics. 30.4% of our power consumption in production and logistics was covered by renewable sources.

5.2 Emissions

Carbon dioxide

The CO₂ released from alcoholic fermentation amounted to 1,244 t in 2017, compared to 1,254 t in 2015. This amount does not need to be considered in the Scope approach, since a corresponding CO₂ binding takes place during the growth of the crop. Since January 1, 2009, we have been receiving 100% „green electricity“ from renewable energies. Thus, electricity does not contribute to fossile CO₂ emissions. We have been using an electric car in our fleet since 2013. Since 2017 an additional hybrid car is used for sales travels. On the brewery site the cars are loaded with “green electricity” from water power or our own solar cells.

SCOPE 2:

Our 100% green electricity comes from large hydropower plants. Its production generates small amounts of CO₂ emissions. This corresponds to approx. 10 t for the amount of electricity we receive.

If we used the average German electricity mix (factor = 516 g CO₂/kWh) instead of green electricity, CO₂ emissions from electricity consumption would amount to 1,912 t.

Conversion factors:

- CO₂-emissions heat = 185 g / kWh gas (BUWAL)
- CO₂-emissions power Scope 1: Since 2009, CO₂ emissions have been eliminated by electricity, as 100% has been converted to green electricity. The figure for 2008 is based on information provided by the electricity supplier with 362 g CO₂/kWh electricity purchased
- CO₂-emissions power Scope 2: According to the Life Cycle Assessment database GEMIS 4.8, the emission factor for electricity generation from hydropower is 2.69 g CO₂ eq/ kWh. According to the UBA, the German electricity mix in 2016 was 516 g CO₂ eq/kWh
- Heating oil/diesel: 9,9 kWh/l; 2,6 kg CO₂/l
- Gasoline: 9,1 kWh/l; 2,36 kg CO₂/l
- Alcoholic fermentation: Release of 3.7 kg CO₂/hl as the difference between the resulting CO₂ and the CO₂ remaining in the beer based on an original wort average of 12.5%. (Source: Dissertation by Angelika Großer, TU Munich-Weihenstephan 2006)

Scope 1: CO₂-emission in the current EMAS period – old calculation

	2017	2016	2015
Heat – gas (old)	1,320 t	1,316 t	1,373 t
Heat – heating oil	0 t	0 t	0 t
Power	0 t	0 t	0 t
Total production (old)	1,320 t	1,316 t	1,373 t
Diesel trucks & cars(*)	207 t	198 t	207 t
Gasoline	3 t	2 t	0 t
Total logistics	210 t	200 t	207 t
CO ₂ -eq from refrigerant	3.9 t	1.43 t	0 t
Total (old)	1,534 t	1,518 t	1,580 t

old: Until 2016 the heat consumption data was calculated with the cubic meters purchased and lower calorific value.

(*) The internal logistics are carried out partly with gas driven and electric forklift trucks. From 2017 on specific vehicle values were used to calculate the CO₂ emissions.

Scope 1: CO₂-emission in the current EMAS period – new calculation

	2017	2016	2015
Heat – gas (new)	1,466 t	1,462 t	1,525 t
Heat – heating oil	0 t	0 t	0 t
Power	0 t	0 t	0 t
Total production (new)	1,466 t	1,462 t	1,525 t
Diesel trucks & cars(*)	207 t	198 t	207 t
Gasoline	3 t	2 t	0 t
Total logistics	210 t	200 t	207 t
CO ₂ -eq from refrigerant	3.9 t	1.43 t	0 t
Total (new)	1,680 t	1,664 t	1,732 t

new: From 2017 on the kWh that were actually used will be registered

(*) The internal logistics are carried out partly with gas driven and electric forklift trucks. From 2017 on specific vehicle values were used to calculate the CO₂ emissions.

Based on 1 hl beer, we were able to further reduce CO₂ emissions compared to the previous year: At 4.55 kg CO₂/hl it is 2.4% less than in 2015. This accounted for 3.92 kg/hl on the production and 0.62 kg/hl on the logistics. A registration of indirect transport emissions by external haulage and logistics contractors as well as large parts of the

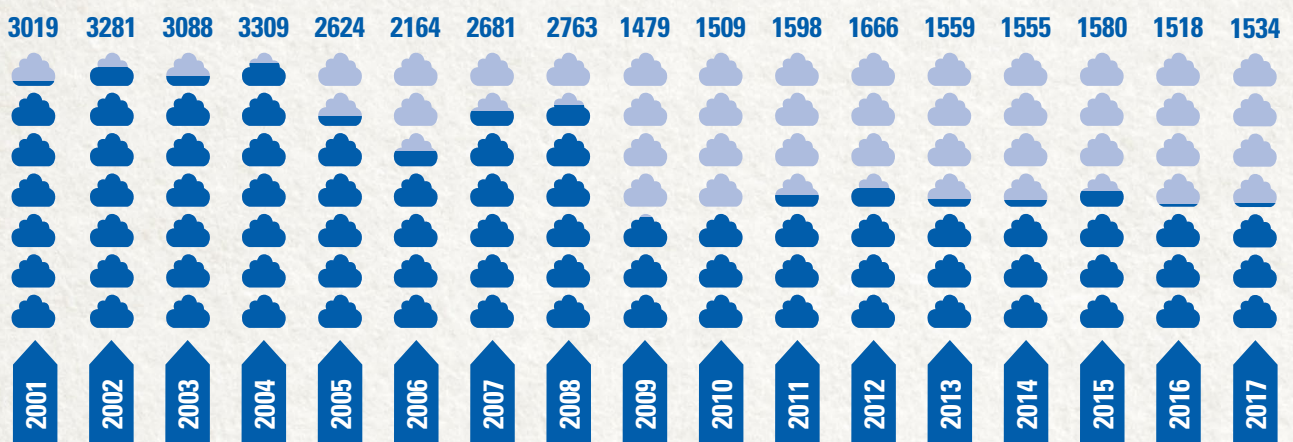
greenhouse gases which GHG protocol defines as Scope 3 cannot be carried out at justifiable costs. As part of a Scope 3 assessment, CO₂ emissions associated with operational flights were determined at 149 t. The following diagrams show the longterm evolution of fossil CO₂ emissions as a total amount and - significantly more meaningful – in relation

to the amount of beer produced. However, this calculation does not include the CO₂ emissions of subcontractors (agriculture) and distribution (transports, trading partners and end consumers). Until 2004, logistics consumption and its CO₂ emissions were only partially recorded. From 2004 to 2008, electricity consumption related CO₂ emissions were calculated using actual values of the electricity generator, in previous years with

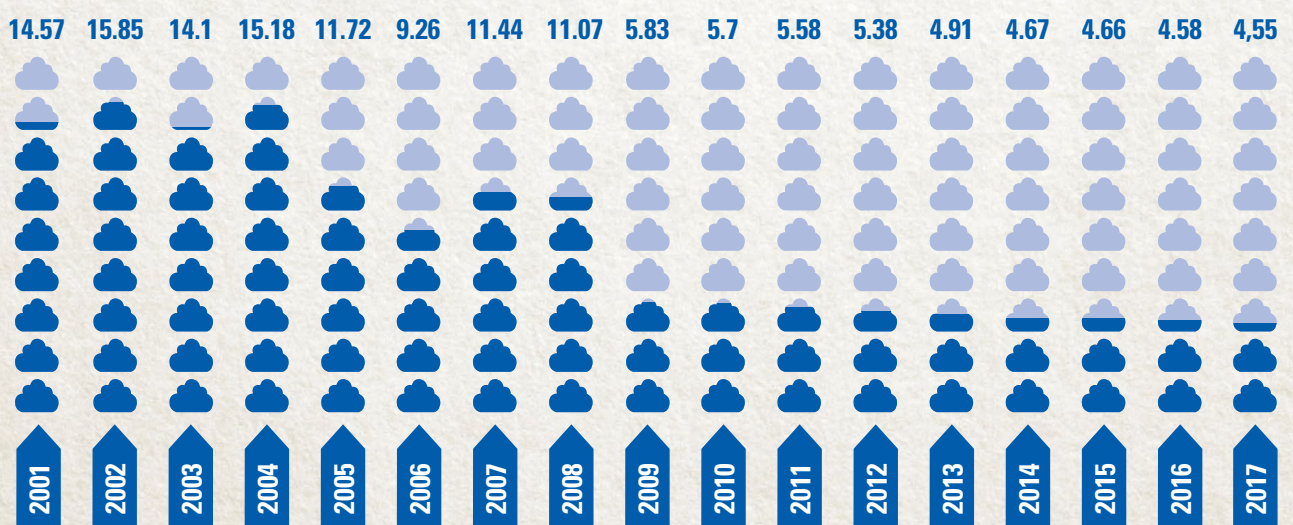
higher average European values. With the new data acquisition in 2017 the kilo-watt-hours that were actually used can be indicated for the first time.

As shown by the following diagrams, the total CO₂ emissions per hectoliter beer that is produced has decreased clearly ever since the environmental management has been introduced – based on both, the old and the new calculation.

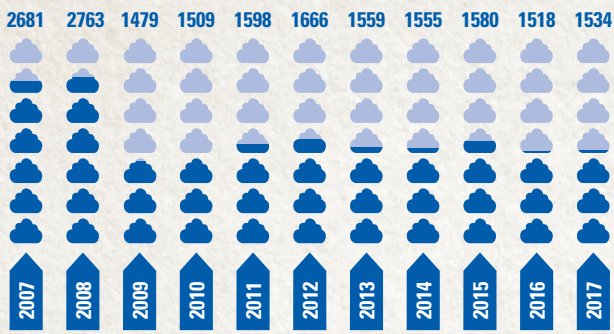
Total-CO₂-Emission (t) since introducing EMAS in 2001 - old calculation



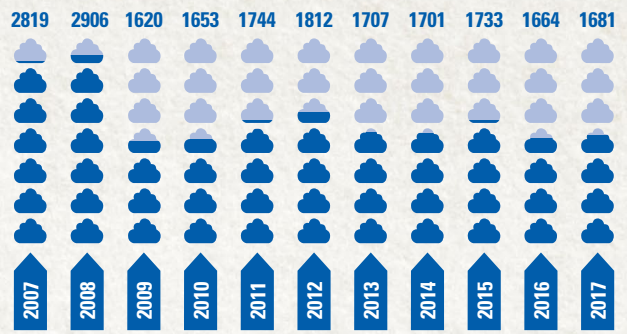
Specific-CO₂-Emission (kg/hl) since introducing EMAS in 2001 - old calculation



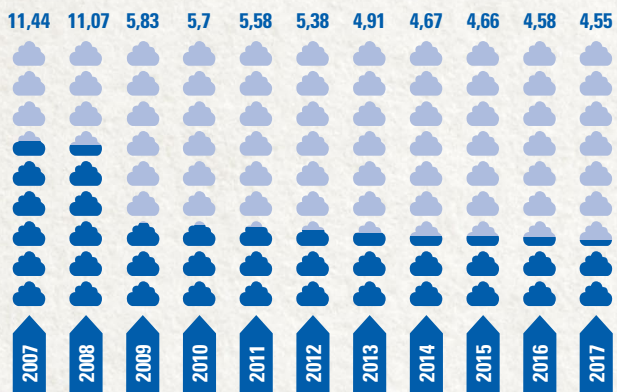
Total-CO₂-Emission (t)
since 2007 - old calculation



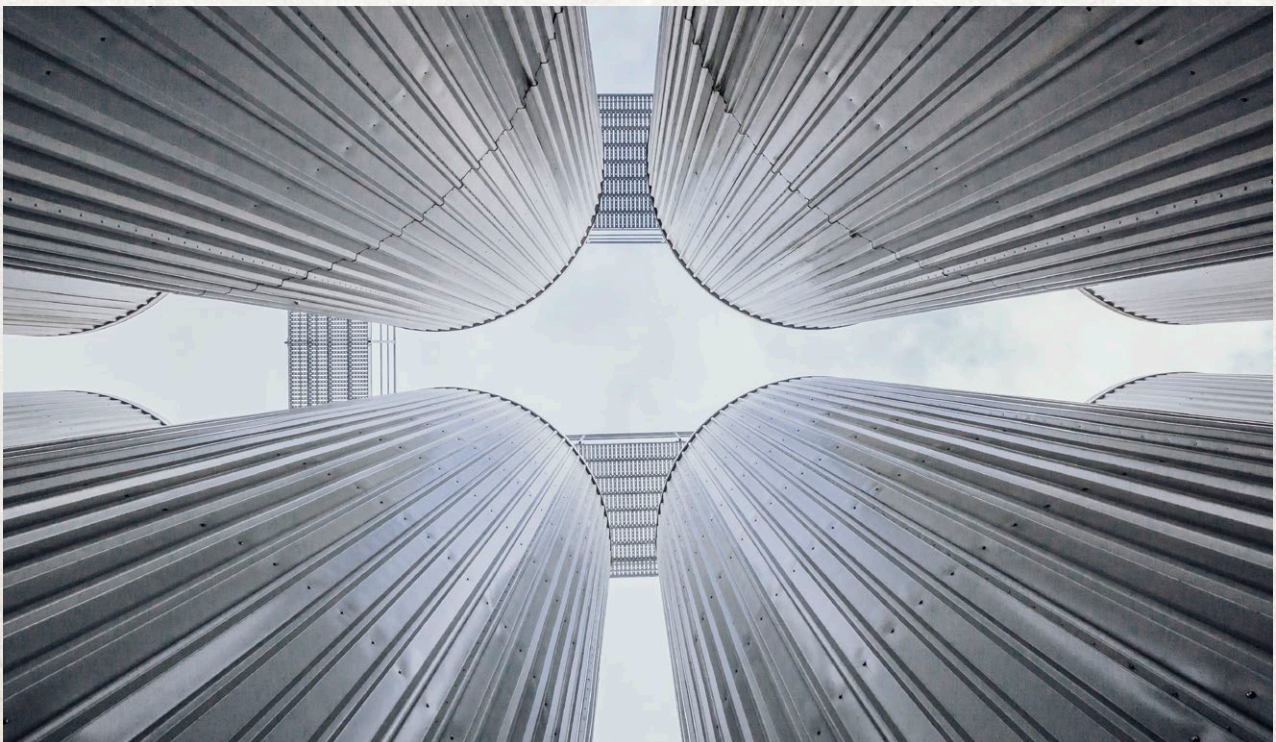
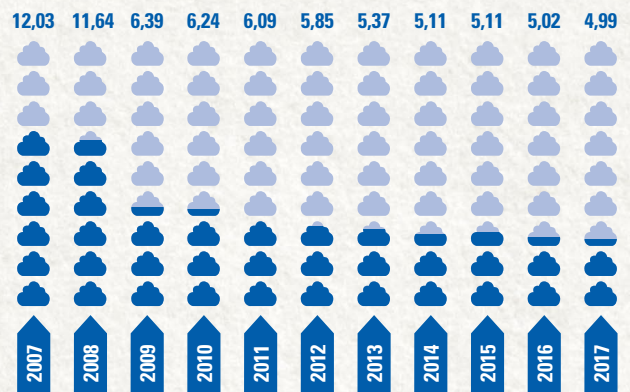
Total-CO₂-Emission (t)
since 2007 - new calculation



Spec.-CO₂-Emission (kg/hl)
since 2007 - old calculation



Spec.-CO₂-Emission (kg/hl)
since 2007 - new calculation



NOISE AND ODOR EMISSIONS

Our location is designated as a commercial area. The prescribed noise limits of 60 dB (A) during the day and 45 dB (A) at night are always observed. Noise-related complaints or complaints about environmental impacts generally did not occur.

The aroma-intensive odor emissions from the brewhouse are suppressed and thus largely avoided by using an energy recovery system, the so-called vapor compressor.

The amounts of SO₂ produced during alcoholic fermentation are unknown and cannot be determined from the literature. However, according to the Doemens School, hydrogenation is the primary source of hydrogen gas during fermentation, while the resulting SO₂ remains bound in fermented beer.



FURTHER EMISSIONS TO THE AIR

In accordance with the requirements of the new EMAS regulation, the emission data of the fleet was calculated new for each car based on manufacturer's information, as far as possible. Instead of values that could not be provided by the manufacturers, individual emissions data were calculated based on the PROBAS database:

- **Sulfur dioxide**
Production and passenger car/truck/air traffic results in an SO₂ emission of 522.68 kg for 2017 (PROBAS).
- **NO_x**
Production and passenger car/truck/air traffic results in a NO_x emission of 807.75 kg for 2017. The emissions of the boiler were calculated based on our external measurements. This value remained at the level of the previous year in 2017. The data for cars and trucks was calculated based on manufacturer's information.
- **PM10**
A potential source of fine dust emissions from the brewery (except motor vehicles) is the malt dusting plant. The weekly inspection of the system shows no dust emissions. The recording of the differential pressure measurement of the dedusting system showed no leaks. Other production (boilers) and passenger cars/trucks/air traffic results in a PM10 emission of 17.1 kg for 2017. The decrease by -23.8% is due to the individual calculation of emissions for each car as well as to the large number of EURO-6 trucks in the fleet.

5.3 Water

The newly constructed plants during the construction of the brewery have already optimally adjusted water consumption as the main raw material, but also as an auxiliary for cleaning in production and filling in consumption for the needs of the brewery. In 2017, 4.19 hl of water was used per hectoliter of beer, a value that has reduced by 5.24% since 2015.

The wastewater load shows an almost to a minimum reduced pollution of the environment by the wastewater. Through the continuous reduction of the specific water consumption and the optimization of the cleaning processes in connection with the mixing and equalization tank or the neutralization plant (which works with flue gas and carbonic acid - air mixture from the fermentation cellar), we have been able to comply with the discharge conditions of urban drainage for many years.

5.4 Wastewater

	Ø Brewing industry	Hofbräu 2016
BSB 5	1,000 – 3,900 mg/l	1,111 mg/l
Total nitrogen	30 – 100 mg/l	15 mg/l

The wastewater volumes are proportional to the amount of fresh water consumed and are on the decline: In 2003, 4.55 hl of wastewater per hectoliter of produced beer still arose, compared to only 2.94 hl/hl in 2017.

5.5 Waste and Remnants

All employees in administration, production and bottling are required to avoid waste and to collect waste separately. For this purpose, the central waste collection center was significantly expanded in 2015. Through regular training, we improve the functioning of the separation and collection system.

In the case of orders, increased attention is paid to the fact that suppliers deliver only a small number of disposable containers (for example, pallets, films, canisters) and materials for packaging and securing the goods.

A very detailed waste management concept of the company shows the great importance this area has in the Staatliches Hofbräuhaus. The amount of „hazardous waste“ had more than doubled in 2015, but this was solely due to the oneoff disposal of caustic soda sludge during the purification of the caustic tanks. After we could reduce hazardous waste by nearly one third in 2016 compared to the total in 2015, building measures in 2017 have led to large quantities of mineral wool that had to be disposed of. Thus we record an increase of 42.8 g/hl.

Last year, the proportion of recyclable waste increased by 4.8%. In this way, we continue to successfully pursue our course of recycling more and producing less residual waste. This includes large quantities of spent grains and residual yeast. These are not considered by us as waste but as byproducts and are used for livestock feeding. Due to animal feed regulations we are forced to recover our malt powder.

WASTE BALANCE

Due to the use of updated waste code numbers, individual types of waste have been classified differently and classified as hazardous or non-hazardous waste. We were able to reduce both

hazardous and non-hazardous waste by improving waste management. At the same time, we have been able to increase the proportion of recyclable waste.

Balance Sheet Item Waste	2017	2016	2015	2014
Hazardous Waste	14,376 kg 42.8 g/hl	8,293 kg 25.1 g/hl	25,357 kg 74.8 g/hl	11,182 kg 33.6 g/hl
* cleaning agents and oil filters	0 container	0 container	0 container	0 container
* thereof used oil	0 kg 0.0 g/hl	0 kg 0.0 g/hl	0 kg 0.0 g/hl	0 kg 0.0 g/hl
Non-Hazardous Waste (not recycled)	64,200 kg 191 g/hl	71,310 kg 215 g/hl	81,752 kg 241 g/hl	71,760 kg 216 g/hl
* thereof residential and commercial waste	50,970 kg 151.6 g/hl	55,490 kg 168.0 g/hl	68,530 kg 202.3 g/hl	62,060 kg 186.7 g/hl
* thereof grease separator sludge	3,000 kg 9.1 g/hl	3,000 kg 9.1 g/hl	6,000 kg 17.7 g/hl	6,000 kg 18.0 g/hl
* thereof waste water sludge	0 kg 0.0 g/hl	7,000 kg 21.1 g/hl	0 kg 0.0 g/hl	0 kg 0.0 g/hl
Other waste without spent grains and old yeast	462,400 kg 1.4 g/hl	480,203 kg 1.5 g/hl	469,248 kg 1.4 g/hl	394,301 kg 1.2 g/hl

5.6 Material Efficiency

The overview is based on production-related mass flows with key figures for absolute and

specific consumption in 2017, 2015 and 2011.

	2017	2015	2011
Malt	5,956 t	6,197 t	5,345 t
New Returnable Bottles	1,239,260 Stk. 9.5%	866,318 Stk. 6.6%	368,186 Stk. 2.62%
Glue	10,686 kg 386 g/TFL	9,066 kg 325 g/TFL	12,789 kg 494 g/TFL
Filter media	72,710 kg 216 g/hl	65,850 kg 250 g/hl	60,100 kg 264 g/hl
Conveyor belt lubricant	4,600 kg 166 g/TFL	4,180 kg 150 g/TFL	3,800 kg 147 g/TFL
Recovered CO₂	809,601 kg 2.4 kg/hl	915,648 kg 2.7 kg/hl	771,805 kg 2.69 kg/hl
Caustic soda 50%	170,091 kg 506 g/hl	184,770 kg 545 g/hl	158,522 kg 553 g/hl
Regenerative hydrochloric acid	78,863 kg 235 g/hl	93,187 kg 275 g/hl	71,002 kg 248 g/hl
other Det. & Dis. total	33,545 kg 100 g/hl	35,673 kg 105 g/hl	33,779 kg 118 g/hl

In 2016, the new variety „Hofbräuhaus Hell“ was brewed for celebrating the 500 years of Beer Purity Law and bottled in Euro bottles. To this end, 36,000 boxes with 720,000 bottles were newly purchased, so that the actual replacement rate in 2016 was not 10.7% but 4.9%. In 2017 we purchased new 24 x 0.33 l crates. These multipurpose crates have won the „Returnable Innovations Award“ offered by Deutsche Umwelthilfe (Environmental Action Germany) and Stiftung Initiative Mehrweg (“Initiative Returnable” Foundation). The use of waste liquors, the reduction of concentrations and mass flow rates of the media (such as caustic soda)

significantly reduce the environmental impact of wastewater and the risk potential of these substances in production and bottling. Compared to the EMAS startup year 2000, today we need less than half of cleaning agents and disinfectants to produce one hectoliter of beer, and only about 60% of the amount of soda lye required in the past. An exemplary hazardous materials warehouse with multiple protections against unwanted spills and the use of hazardous substances such as the refrigerant ammonia in closed systems ensure maximum safety against adverse environmental effects.

5.7 Land Use und Biodiversity

LAND USE

The total area required for our brewery is 96,268.2 m². This area is divided in:

- 43,092.8 m² (44.8%) sealed areas, including 22,494.9 m² covered by buildings
- 2,112.4 m² (2.2%) partly sealed areas
- 51,063.0 m² (53.0%) unsealed areas, including 45,236.6 m² of planting area

Hazardous waste from the past has not been discovered on the brewery areas.

BIODIVERSITY

Since April this year „HB is for HoneyBees“. This is due to three bee colonies that live on the HB München premises. The project is being looked after by our trainees who receive support from a professional bee-keeper.



INDIRECT ENVIRONMENTAL IMPACTS

5.8 Production and Plants

2017 was a year of preparation for large investments that are about to be realized in 2018/19. For instance our brewhouse is going to be renovated and the vapor compressor that is used for energy saving wort circulation as well as the old pumps are about to be replaced by a new system. By doing this, we are considerably reducing the vaporization figures, so that much less primary energy will be used during wort boiling. Also, we are planning to add a new system that allows continuous beer filtration, which will on the one hand reduce the consumption of heat, but on the other hand will lead to a diatomaceous earthfree production process and thus avoid high CO₂ emissions.

5.9 Environmental Policies of Suppliers

Employees who work in administration and production with the brewery's purchasing department are encouraged to pay more attention to eco-friendly products. Likewise, partners and suppliers are encouraged to provide environmentally sound products and services. During our purchase process we make sure that our suppliers only use limited amounts of non-returnable containers (e.g. pallets, foils, canisters) and other packaging materials. In addition to the quantities of beer filled to 80% in reusable containers (tanks, KEG drums, returnable containers, reusable bottles), we offer disposable bottles and 5 l cans only for the international market. In doing so, we consider the fact that, according to Life Cycle Assessment UBA I, one-way packaging is more suitable for transporting beer over very long distances. We consider the exclusive use of recyclable material for these packaging.

With a Supplier Inspection Catalog and ongoing environmental discussion, we aim to further enhance our impact on suppliers and their environmental performance. For our long distance export transport we have worked on finding a more environment friendly solution than returnable kegs. This is why we want to start working with so-called Poly KEGs in 2018. In order to make better definitions and considerations of the requirements of our organization, we are utilizing tools from the Environment Pact Bavaria for a stakeholder analysis. By using a bonusmalus system based examination catalogue for our suppliers and by continuous discussion of ecological topics we want to intensify our influence on our suppliers and their ecological policies, which will ultimately allow us an easier assessment of our own supply chain sustainability.

5.10 Vehicle Fleet

Based on a reassessment, the diesel consumption of our truck fleet increased statistically by 10.4% compared to the last year. The new assessment takes into consideration that until 2016 not only trucks but also small transporters were included in the truck category. This clearly shows in the comparison of both groups' average consumption: While trucks in 2017 consumed an average of 30.0 l/100 km, transporters consumed 10.15 l/100 km. Both groups combined would lead to a comparative value of 27.9 l/100 km, which would be a reduction of -2.1%. The diesel consumption of cars amounted to an average of 7.5 l/100km. Since 2013, we have been using an electric car as a pool vehicle for the business trips in the city area and in 2017 we added a hybrid car to our sales fleet. These are recharged on the brewery site with electricity from renewable energies and thus drive approximately carbon-neutral.

5.11 Occupational Safety and Emergency Organization

All employees in the technology are regularly trained with instructions and notices. Work and environmental protection measures and the handling of hazardous substances are fundamental issues. Our employees, executives and safety officers are a well-rehearsed team that works based on legal measures to improve occupational safety and thus effectively prevents accidents and their consequences for the environment.

As part of the risk assessment in all production areas, the status was recorded in a plant visit with an external safety expert and a concept for improving and updating occupational safety was drawn up. This concept will be implemented step by step.

5.12 CO₂ Compensation

In cooperation with the Bavarian Nature Fund we have realized our first moor restoration project named "Weitmoos südlich Schleinsee" in Eggstätt. According to the certification on CO₂ saving by Prof. Dr. Drösler, University of Weihenstephan-Triesdorf, this allows to **save 1,115 t of CO₂ equivalents**. Spread over the certification period this implies a compensation of **22.3 t of CO₂ equivalents p.a.** Since we are looking to define further projects in Bavaria we work together with the Bavarian Nature Fund as well as the Greensurance Foundation. Our plan for the future is to realize more "real compensation projects", possibly in Bavaria, instead of getting "catalogue" certificates.



Environment Secretary Ulrike Scharf presents Dr. Möller with the "Moorbenefit" certificate

6. HB MÜNCHEN'S ENVIRONMENTAL POLICIES COMPARED

Based on the 2016 data we participated in a company energy comparison that was carried out by the IGS office Hallbergmoos in cooperation with the Brewers' Association. The results have proved that HB München performs very well which,

however, does not mean that we are satisfied. The following table shows the comparison with the average figures of the breweries producing 100,000 –500,000 hl:

	HB München	Ø Brewing industry 100 - 500 Thl	Difference HB to Ø
Spec. heat consumption	21.21 kWh/hl*	33.36 kWh/hl	-36%
Spec. power consumption	11.0 kWh/hl*	11.7 kWh/hl	-6%
Spec. water consumption	4.40 hl/hl*	5.42 hl/hl	-19%

*) Die Data for the company comparison is slightly different to the data of the Environmental Statement 2018.



7. REVIEW

In 2001, Hofbräu München joined the Community Eco-Management and Audit Scheme (EMAS). Since then, we regularly monitor our environmental performance through internal and external environmental audits. Since then, we have regularly monitored our environmental performance through internal and external environmental audits. EMAS is a sophisticated and performance-oriented system that goes beyond the statutory requirements. Of the 624 Bavarian breweries, we are one of a total

of 17 breweries (EMAS register, as of May 24th, 2018), that want to continuously improve using EMAS. With this system, we have been following a successful path towards more sustainability and environmental protection since the turn of the millennium. This enabled us to reduce our specific CO₂ emissions [kg CO₂/hl] in 2017 by -69% compared to 2001. Compared with the beginning of our environmental data collection in 1998, we were even able to reduce specific CO₂ emissions by 74%.



Development of environmental performance figures since the introduction of Environmental Management at Hofbräu München

Area	As of 2000	As of 2017	Development
Natural gas & heating oil	31.90 kWh/hl	21.21 kWh/hl	-33.5%
Power consumption	14.10 kWh/hl	11.02 kWh/hl	-21.8%
Water consumption	5.89 hl/hl	4.19 hl/hl	-28.9%
Belt lubricant	111 g/TFI.	166 g/TFI.	49.5%
Glue	558 g/TFI.	386 g/TFI.	- 30.8%
Caustic soda	859 g/TFI.	506 g/TFI.	-41.1%
Detergents & Disinfectants	218 g/hl	100 g/hl	-54.1%

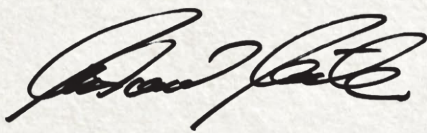
8. OUTLOOK

In the upcoming years, Hofbräu München wants to expand its position as a role model in environmental protection.

We were the first German brewery to have its own climate gas output extensively determined and to develop a climate protection strategy. With the substantial investments planned for the years 2016 - 2019, the reduction part of this strategy should be fulfilled and the greenhouse gas emissions per hectoliter of beer should be reduced by 30%. In cooperation with the Bavarian Nature

Fund and other partners, further Bavarian climate gas compensation measures are to be developed. In doing so, we want to realize a climate strategy of the highest credibility.

Every year, an updated Environmental Statement is approved by the management and released for publication. This updated Environmental Statement will be submitted for validation in July 2018 and the next consolidated Environmental Statement in July 2019.



Dr. Michael Möller (Director)



ENVIRONMENTAL EXPERT (ORGANIZATION)

ENVIRONMENTAL STATEMENT

The next consolidated Environmental Statement will be submitted for validation in July 2020 at the latest. In years when no consolidated or updated Environmental Statement is validated by the environmental expert, a non-validated Environmental Statement is submitted to the responsible registry office.

ENVIRONMENTAL EXPERT (ORGANIZATION)

The commissioned environmental expert / environmental expert organization is:

Dr.-Ing. R. Beer (Authorization No. DE-V-0007)

Intechnica Cert GmbH

(Authorization No. DE-V-0279)

Ostendstr. 181, 90482 Nuremberg

Validation Confirmation

The undersigned, Dr. Reiner Beer, EMAS expert with the registry No. DE-V-0007, accredited or licenced for area 11.05 (NACE-Code Rev. 2), confirms the examination of the site or whole organization of Staatliches Hofbräuhaus München, Hofbräuallee 1, 81829 Munich, regarding the updated/consolidated Environmental Statement (registry no. D-155-00208) according to the fulfillment of all requirements defined in regulation (EG) No. 1221/2009 of the European Parliament and the council of November 25th, 2009 and amending regulation No. 2017/1505 of August 28th, 2017 on the voluntary participation of organizations in a common system on Environmental Management and Audit Scheme (EMAS).

By signing this Statement it is verified that

- the examination and validation were carried out in full compliance with the requirements of regulation (EG) No 1221/2009 and amending regulation No. 2017/1505,
- the result of the examination and validation confirms that no record indicates any non-compliance with applicable environment regulations,
- all data and details included in the Environmental Statement / the updated Environmental Statement of the organization / site have presented a reliable, credible and truthful statement about all relevant activities of the organization / site.

Nuremberg, June 6th, 2018

Dr.-Ing. Reiner Beer
Environmental Expert

Staatliches Hofbräuhaus in München

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