



ERDÖLBEVORRATUNGSVERBAND



German National Petroleum
Stockpiling Agency





Strategic stockpiling of oil in Germany

Crude oil is one of Germany's most important primary energy sources. The production of countless goods as well as road and air transportation, central heating, and much else, all depend to one degree or another on the availability of crude oil and of refined products such as gasoline, diesel fuel, light heating oil, kerosene, etc.

Germany's own oil resources are very limited. While the country consumes around 100 million tons of oil per annum, domestic production covers only 3% of this.

The Federal Republic has made legal provision for a strategic oil reserve since the 1960s.

With the 1970s oil crisis, this strategic reserve took on greater importance and has since been expanded several times.

Furthermore, Germany has a responsibility to maintain strategic reserves under international treaties. All countries of the European Union thus have emergency oil stocks organised in different ways.



Germany also belongs to the International Energy Agency, whose member states are all obliged to maintain emergency oil stocks.



In order to share the stockholding costs of the strategic reserve equitably between different sectors of the oil industry (between producers and traders, for example) and between companies of different sizes, the German legislature replaced the earlier regulations with the Petroleum Stockholding Act (Erdölbevorratungsgesetz) of 1978.

This law has since then governed the operation of the German national emergency oil reserves, in the form of a compulsory stockholding system. The key institution in this system is the Erdölbevorratungsverband (EBV), with its headquarters in Hamburg.

The EBV is a public corporation responsible to the Federal Government. Over time, it has taken on exclusive responsibility for Germany's strategic oil reserves.



This brochure is intended to offer a brief overview of the EBV's responsibilities and operation.

Further information can be found on the Internet at www.ebv-oil.org



The EBV and its responsibilities

The EBV is under a legal duty to maintain permanent stocks of crude oil and oil products gasoline, diesel fuel, light fuel oil and kerosene equal to at least 90 days' consumption, intended for use in the event of supply disruptions.

Membership of the EBV is compulsory for all businesses that import into Germany – or produce within the country – the oil products gasoline, diesel, light fuel oil and kerosene for use as a source of energy (i.e. as fuel for heating or power).

In simple terms, the size of the stocks the EBV is obliged to hold is based on the average quantity of crude oil and oil products imported into Germany over a ninety-day period, minus exports and other relevant exclusions. The EBV's obligations may be met by holding stocks either of oil products gasoline, diesel, light fuel oil and kerosene or of crude oil.

Reserves must be distributed throughout Germany, so that each supply region, defined on the basis of refining centres, has at least 15 days' supply available for immediate use. By law, the EBV must hold at least 90 % of the stock as its own property, with no more than 10 % held in the form of what are called "delegations", when the oil is owned by a third party but can be made immediately available to the EBV.

In the case of disruption of oil supplies the EBV makes some or all of its stocks available to its members. Such a release of stocks requires an order by the Federal Ministry of Economics and Technology. Stocks are preferentially made available to EBV mem-



bers at the current market price. The allocation of stocks among members is essentially based on their proportional contribution to the costs of maintaining the reserve, i.e. in terms of their percentage contribution to the EBV's levy income. Member businesses then put the oil released to them on the market via the usual logistical and commercial channels.

The responsibilities of the EBV are discharged to its Management Board and employees.

In addition to the Members' General Meeting, the highest decision-making body, there is an Advisory Board acting as the supervisory body, which also appoints the Management Board. The Advisory Board consists of at least nine members: up to three representatives appointed by the Federal Ministry of Economics and Technology, one from

the Ministry of Finance, and one from the German Bundesrat as well as six representatives of the German oil industry. Industry representatives are elected for a period of three years. A substitute is appointed or elected for nine members of the Advisory Board.

The EBV's Management Board and Advisory Board are advised by an Economic Committee and a Stockholding Committee. These committees are made up of representatives of the EBV's member businesses.



Storage and quality maintenance

For the storage and quality maintenance of its stocks, the EBV contracts with partners in the oil industry.

On the basis of Frame Storage Agreements, individual contracts are concluded with storage companies for the volumes of tank storage to be made available. Such contracts cover periods of one to five years, and contracts for the storage of kerosene may be for even longer periods. The EBV regularly carries out on-site inspections to ensure compliance with current contract terms.

In holding reserves, it is not enough just to acquire the oil stocks and leave them in storage to await an eventual emergency. Because of refined products' deterioration with age and changes in usage patterns (e.g. in the number of diesel vehicles) and product specifications (such as the reduction in the sulphur content of light heating oil), stored oil products have to be turned over or changed at regular intervals. This

ensures that should a release become necessary, the stocks available will be of merchantable quality and correct composition.

The EBV holds most of its above-ground oil stocks in shared storage facilities. This means that the EBV's stocks are stored in shared tanks together with those of other parties. As the latter are using their stocks in the course of business, constantly turning them over, the EBV's stocks are continually refreshed and compliant with current specifications (prescribed in German and European standards).

To a much lesser extent, above-ground stocks may also be held in separate tanks attributed only to them. In such cases, it is agreed under contract that the oil depot operator or a third party will exchange the



stocks whenever this becomes necessary for reasons of quality (aging, changing specification). In these cases, responsibility for quality control resides with the EBV.

Invitation to tender for tank storage and delegation are regularly issued on an EU-wide basis.



Contract forms and information on the tender process are available on the EBV's website at www.ebv-oil.org under the tab **Logistics & Stocks**.



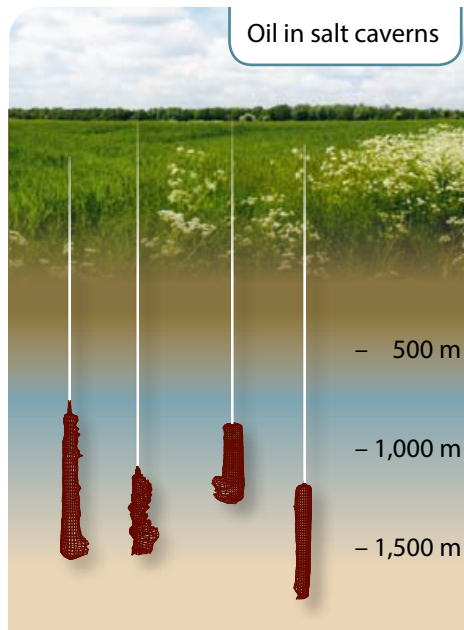
Cavern storage

While oil products are mainly stored in tank farms above ground, a significant proportion of the crude oil is stored in caverns underground.

These caverns are man-made cavities in salt domes, between 500 and 1,500 metres beneath the ground, and some hundreds of thousands of cubic metres in volume. With only the cavern head visible above ground, an average cavern will hold the contents of a supertanker. Most cavern storage takes place in the EBV's own caverns, operated by its wholly owned subsidiary, the Nord-West Kavernengesellschaft mbH (NWKG) of Wilhelmshaven. The EBV has cavern storage facilities in Wilhelmshaven, Bremen-Lesum, Heide in Schleswig-Holstein, and Sottorf near Hamburg.

These locations presently have 58 caverns representing a volume of 12.5 million cubic metres (as of 2012). This makes the NWKG the leading operator of liquid storage caverns in Europe.

Oil in salt caverns



Further information on cavern storage can be found on the website of the NWKG at www.nwkg.de



Quality control

The quality of stored crude oil and oil products is regularly monitored.

For oil products in separate storage this means taking regular samples to be analysed using specialist software.

Annual Coordinating Meeting of Entity Stockholders (ACOMES) and the International Crude Project Group (ICPG).

The EBV is also looking at the cavern storage of refined products and the use of additives to make long-term storage possible. Long-term statistics thus made available will also be used to improve aging predictions.

The EBV is also active in industry bodies such as the DIN technical committee for fuel products, the fuel committee of the Deutsche Wissenschaftliche Gesellschaft für Erdöl, Erdgas und Kohle e. V. (DGMK) (German Society for Petroleum and Coal Science and Technology), as well as in international organisations such as the





Costs and funding

The Petroleum Stockholding Act provides for no public support or direct state guarantees to the EBV.

Furthermore, the oil companies do not have a shareholder's interest in the EBV. If the organisation were to be dissolved – an event that could only be brought about by legislation – the Federal Government would take over any outstanding liabilities.

Interest payments and expenses of tank and cavern storage represent the two most significant cost categories. Operational expenses are covered almost entirely by a compulsory levy on EBV members.

This levy amounts to approximately 300 million euros per annum.

The levy is payable as soon as an oil product is produced in a German refinery or is imported into the country. For equity's sake, products derived from German (domestic) crude oil are also subject to the levy. However, this oil is not taken into account in the calculation of the required reserve, as it will still be available in the case of disruption of external supplies.

Exports from Germany, bunker fuel for international maritime navigation and oil as feedstock for the chemical industry are also deducted by the member when assessing the levy due.

The levy is set at a uniform rate in euros per ton for each category of oil product.



Information on historical and current rates can be found on the EBV website www.ebv-oil.org under the tab **Fees**.

The EBV's assets amount to 4.2 billion euros, by far the most significant category being represented by the oil reserve itself at 3.7 billion euros. Funding is mainly by long-term credit.

The EBV's borrowing is effected for the most part through the issue of promissory notes and registered bonds. With maturities of up to 30 years, these are denominated in euros only. The EBV is distinguished by its great stability as a business, a stability underscored by the rating awarded each year by Standard & Poor's. The EBV thus offers institutional investors the highest degree of security. Furthermore, by virtue of its statutory basis, the agency cannot possibly become insolvent.



Further details on borrowing are available at www.ebv-oil.org under the tab **Capital Markets**



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