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INTRODUCTION

1. INTRODUCTION

1.1. PREFACE

DEAR RESIDENTS OF BASEL-LANDSCHAFT

Will we face a possible energy shortage this winter or a winter in the near future? We do not know, but bottlenecks in the supply of electricity and natural gas cannot be entirely ruled out at this time. In fact, the situation has eased somewhat as a result of the measures taken to secure supplies domestically and abroad.

In any case, however, prevention is better than cure. That is why the Canton of Basel-Landschaft is currently engaged in active precautionary planning. Assuming an exemplary role, the canton has already ordered measures for itself, which are noticeably reducing the energy consumption of cantonal administration. By saving energy, each and every one of us can also personally contribute to preventing a shortage from arising in Switzerland in the first place, to the extent possible.

But the degree to which we are prepared for a potential energy shortage plays a critical role. Besides the Confederation, the cantons, communes and the economy, this also calls for the support of the entire population. By taking simple precautionary measures, we can all help to cushion the impact of a possible energy shortage.

With this handbook, the Canton of Basel-Landschaft supports you in your personal preparations for a potential energy shortage. This document offers many practical tips and suggestions for preparing for and dealing with an interruption of electricity and gas supply.

Important to keep in mind is that there is no energy shortage currently. However, personally preparing for this risk is never a bad idea and we believe this handbook will provide you with valuable support.

Kathrin Schweizer
President of the Cantonal Council
Head of the Department of Security

Isaac Reber
Cantonal Councillor
Head of the Department of Construction
and Environmental Affairs

1.2. ENERGY SHORTAGE

DEFINITION

An energy shortage means that the demand for the described energy carriers exceeds supply and the market no longer has a regulating effect.

DIFFERENCE BETWEEN ENERGY SHORTAGE AND ENERGY FAILURE

In contrast to energy failure, energy is still available during an energy shortage, albeit to a reduced extent. This may be the case for several days, weeks or months. The reasons for this include inadequate production, transmission and/or import capacity. It is possible to respond to an energy shortage with savings measures, consumption restrictions, rationing or power cuts.

CURRENT SITUATION

To find out about the current situation, please refer to the website of the Canton of Basel-Landschaft: www.baselland.ch

1.3. MAIN ENERGY CARRIERS

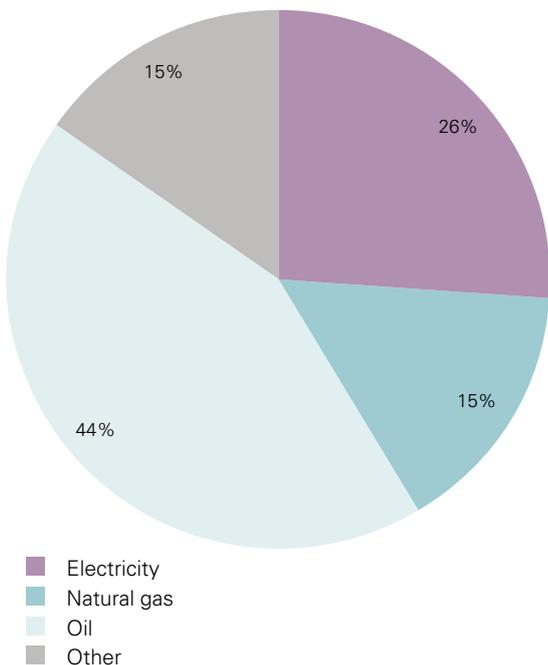
Today, around 90 percent of Switzerland’s energy requirements are covered by electricity, natural gas and oil products. About 80 percent of the energy must be imported from abroad in one form or another.²

Electricity covers around a quarter of Switzerland’s energy needs. Sufficient domestic generation, functional grid infrastructure and, for around 4 percent of total consumption (in 2021), electricity imports are required for a reliable supply of electricity.

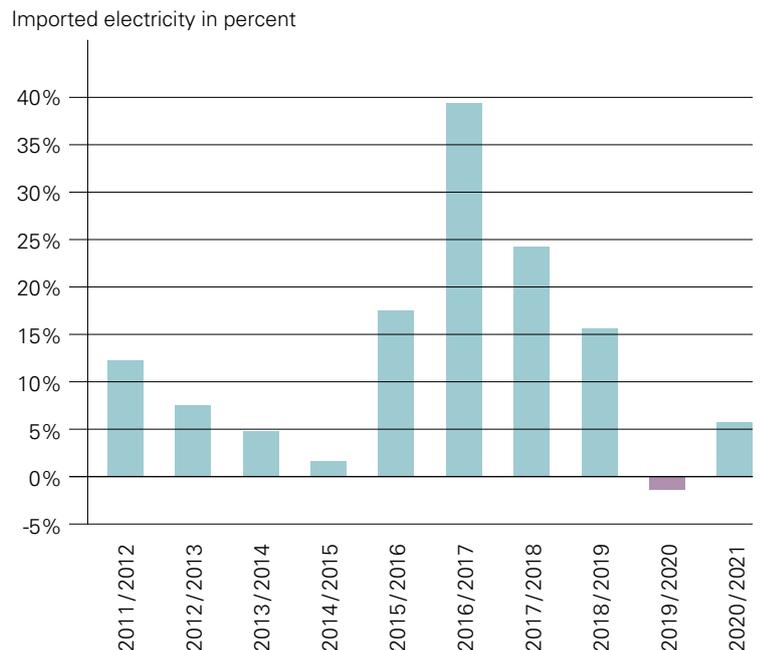
Natural gas covers approximately 15 percent of Switzerland’s energy requirements. Households account for 42 percent of total consumption (as at 2020).³ Since no natural gas reserves exist in Switzerland, 100 percent of consumption must be covered by imports.

Oil products cover around 40 percent of the energy requirements of Switzerland. This includes diesel, petrol and heating oil. Switzerland has no oil deposits and must therefore import 100 percent of crude oil and oil products by ship, train, truck or pipeline.

SHARE OF FINAL CONSUMPTION BY ENERGY CARRIER, 2021¹



NET ELECTRICITY IMPORTS IN WINTER HALF-YEARS





ORGANISATION

2. ORGANISATION

2.1. MEASURES BY THE FEDERAL COUNCIL

If the savings measures fall short, the Federal Council may introduce individual measures or combinations of measures by passing ordinances. In this case, grid shutdowns, for example, are considered an emergency solution and will be prevented as far as possible.

An overview of the current effective measures by the Federal Council can be found on the [website of the Canton of Basel-Landschaft](#). The following section describes the measures foreseen by the Federal Council.

Wenn der Strom knapp wird

Mögliche Massnahmen bei einer Strom-Mangellage

Stand: 23. November 2022



Je nach Strommenge, die eingespart werden muss, werden die Massnahmen einzeln oder kombiniert eingesetzt



Sparappelle (Aufruf zum Sparen)
Entscheidung: Delegierter der Wirtschaftlichen Landesversorgung (WL)
Betroffen: alle Verbraucher



Einschränkung oder Verbote nicht zwingend benötigter Geräte und Anlagen
Entscheidung: Bundesrat
Betroffen: je nach Situation sind folgende Schritte möglich:

- ⊖ 1. Schritt: z.B. Maximale Temperatur für Waschmaschinen in privaten Haushalten, Beleuchtungen zu Werbezwecken zwischen 23:00 und 05:00 Uhr verboten
- ⊖ 2. Schritt: z.B. Maximale Heiztemperatur für öffentlich zugängliche Räume, Verbot von Beleuchtungen zu Werbezwecken
- ⊖ 3. Schritt: z.B. Ladenöffnungszeiten reduzieren, Verbot von Waschanlagen für Fahrzeuge



Kontingentierung
Entscheidung: Bundesrat
Vollzug: OSTRAL*
Betroffen: Grossverbraucher

⊖ 4. Schritt: z.B. Verbot des Betriebs von Sportanlagen, Verbot von Kulturveranstaltungen sofern elektrisch betrieben



Netzabschaltungen für einige Stunden
ultima ratio
Entscheidung: Bundesrat, Vollzug: OSTRAL*
Betroffen: alle Verbraucher

*Organisation für Stromversorgung in ausserordentlichen Lagen, gebildet durch den Verband Schweizerischer Elektrizitätsunternehmen (VSE). OSTRAL wird beim Eintreten einer Strommangellage auf Anweisung der Wirtschaftlichen Landesversorgung (WL) aktiv.

ELECTRICITY

Electricity customers with an annual consumption of more than 100,000 kWh are considered major consumers. Average energy consumption per capita amounted to around 7,500 kWh in 2014. This also includes critical infrastructure (emergency services, hospitals, public transport, etc.).

By combining appeals to save energy (voluntary and without decrees) with consumption restrictions, it is possible to achieve a savings potential of up to 15 percent for electricity, for example.

Wenn das Gas knapp wird

Mögliche Massnahmen bei einer Gas-Mangellage

Gemäss den Verordnungsentwürfen zu den Verwendungseinschränkungen und zur Kontingentierung im Erdgasbereich vom 16. November 2022



1.



Sparappelle (Aufruf zum Sparen)

Entscheidung: Delegierter für wirtschaftliche Landesversorgung (WL)
Betroffen: alle Verbraucher, z.B. Beschränkung der Heiztemperatur

2.



Umschaltung Zweistoffanlagen von Gas auf Öl

Entscheidung: Vorsteher WBF
Betroffen: Unternehmen mit Zweistoffanlagen

3.



Verbote und Beschränkungen der Verwendung von Gas

Entscheidung: Bundesrat
Betroffen: private und öffentliche Wärmeverbraucher, z.B.:



Verbindliche Beschränkung der Raumtemperatur in Privathaushalten, Geschäftsräumen und Büros auf 20 Grad Celsius.



Heizverbot für Schwimm- und Wellnessbäder sowie für leerstehende Wohngebäude

4.



Kontingentierung

Entscheidung: Bundesrat
Betroffen: private und öffentliche Unternehmen

Massnahmen werden schrittweise oder gegebenenfalls parallel umgesetzt

NATURAL GAS

“Protected consumers” are generally understood by the National Economic Supply (NES) as being assignable to the categories of “housing” and “essential social services” (excluding education and public administration). For example, the heating supply in households or senior homes is protected.

Conversely, “non-protected consumers” are those that cannot be assigned to the category of protected consumers and therefore fall under the categories “work” and “leisure”. In particular, these include industrial plants, office buildings, leisure facilities, warehouses, schools, administrative buildings, restaurants and hotels.

OIL

In the event of import problems for oil, the National Economic Supply (NES) will seek to achieve full supply by releasing compulsory stocks, followed if necessary by a gradual reduction in consumption. This would be comprised as follows:

– A **rationing of aviation fuel** is targeted at the importers and merchants that maintain supply contracts with airlines at Swiss airports.

– A **rationing of petrol and diesel** moderates fuel purchases over two months by introducing ration cards at serviced fuel stations. The ration cards are transferable.

– The **management of heating oil** supplies is introduced in the event of serious and more persistent supply risks. The aim is to reduce the consumption of heating oil by consumers in a targeted manner. Management of supplies is based on the individual average annual consumption of heating oil over the last two years (determined by self-declaration).

2.2. COMMUNICATION CHANNELS

As a rule, the Federal Council will inform the public about a critical supply situation in press conferences. Moreover, further information will be provided on the website and disseminated through various channels (e.g. Alertswiss app, Twitter, etc.). If control measures are introduced by the Federal Council, it will inform the public about the corresponding decisions. In the case of rationing, the grid operators will inform their major consumers about the specific form of implementation

by letter. In the event of cyclical grid shutdowns, you will be informed by the media. You can then contact your grid operator to find out the specific details of the shutdown plan. The cantons are able to provide additional information. You can find the most important contacts and websites below:

Canton

Kantonaler Führungsstab [Cantonal Management Staff]
Oristalstrasse 100
4410 Liestal
kfs.energie@bl.ch

Cantonal Management Staff of Basel-Landschaft

ALERTSWISS (Federal Office for Civil Protection, FOCP)

Federal Office for National Economic Supply (FONES)

Confederation

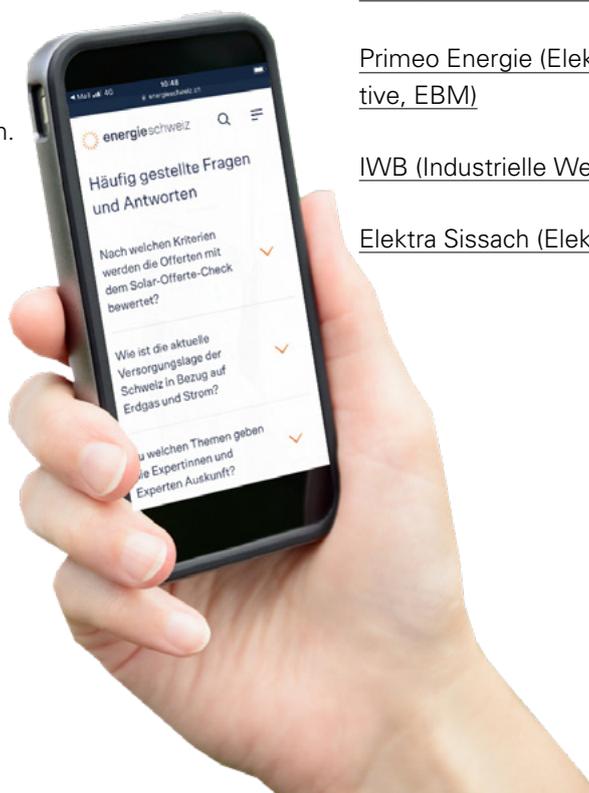
EnergieSchweiz hotline
Telephone 0800 005 005
hotline@bwl.admin.ch
Monday to Friday 8 a.m.–6 p.m.

EBL (Elektra Baselland Cooperative)

Primeo Energie (Elektra Birseck Münchenstein Cooperative, EBM)

IWB (Industrielle Werke Basel)

Elektra Sissach (Elektra Sissach Cooperative)





PERSONAL MEASURES

3

3. PERSONAL MEASURES

Despite the preparations by the energy industry and the state measures, the population has a responsibility and an interest in carrying out appropriate crisis precautions. In connection with electricity shortages, power cuts may occur either unplanned or as a result of (previously announced) grid shut-downs as part of control measures.

You can reduce the negative impact of an energy shortage by taking simple measures and acting accordingly. The most important requirement for successful planning is teamwork within the household as well as with the neighbourhood. Discuss your contingency plan with the entire household and find common solutions in the neighbourhood.

The measures in this chapter are primarily focused on preparing for an electricity shortage. The reason for this is the very limited scope for action on the part of private households in the use of natural gas and oil. However, it is important to always keep in mind that an energy shortage may affect multiple energy carriers at the same time.

3.1. PREVENTION

Since every household is different, there is no one-size-fits-all strategy. This handbook guides you through the key considerations and presents suitable measures that you can prioritise and implement on an individual basis.

⚠ Respond sensibly and constructively to a possible energy shortage. National supplies are secured for the long term and there are sufficient food, drink, animal feed and basic necessities for everyone. People who panic buy and take more than necessary may potentially cause others to face empty shelves.⁴

CONSIDER HOW YOU MAY COVER THE FOLLOWING NEEDS FOR A PERIOD OF ONE WEEK

- Securing enough drinking water and preparing a warm meal without electricity
- Ensuring the necessary lighting
- Receiving important news
- Keeping at least one room in the household warm without electricity
- Continuing to operate important equipment, devices and systems in the event of a power cut if necessary (e.g. medical devices such as dialysis machines, alarm systems, pumps)
- Ensuring hygiene (failure of toilet flushing, shower, etc.)
- Maintaining freedom of movement in your flat, your house or your development generally and in emergencies (failure of lifts, stair lifts, electric doors, etc.)
- Continuing to meet the needs of pets

In the following, you can find an (inexhaustive) explanation of possible measures to support you in the event of these challenges.



GENERAL PREPARATIONS

Prevention

- Take precautions so that people in need of care can be looked after without support for some time if necessary. Keep enough medication and hygiene articles to last at least one week.
If medication needs to be cooled, a grid-independent method of cooling must be available.
- Keep enough cash at home for at least two weeks (including small cash bills). In the event of a power failure, cash points and electronic forms of payment will no longer work.
- Note down important contacts, dates, etc. on paper and print out important documents (e.g. this handbook), since the computer or printer will be unusable during a power failure.
- Discuss the measures taken in your household and rehearse the scenario.
- You can easily create an emergency plan with [Alertswiss](#) from FOCP (the Federal Office for Civil Protection).



CONSIDER HOW YOU CAN ENSURE ENOUGH DRINKING WATER AND PREPARE A WARM MEAL WITHOUT ELECTRICITY FOR A PERIOD OF ONE WEEK

Prevention

- Using non-electrical cooking equipment such as:
 - camping cooker with gas canisters
 - fondue set with gas / methylated spirits
 - outdoor grill or cooking equipment with gas / wood / charcoal you can also cook food without electricity. Familiarise yourself with these options in advance to ensure you actually have a means of cooking during a power failure.

Please observe the following safety information:

- Handle open flames with care and never leave candles unattended.
- Never use a gas grill, gas heater or gas radiator indoors due to an acute danger of carbon monoxide poisoning.
- Follow the tips from the advice centre for [fire prevention](#).

- If electricity is available, save as much as possible. For example, use a pressure cooker instead of the oven, and a kettle instead of a pot to boil water. Use pots and pans with the same diameter as the hob and use a lid.
- Do not store any gas containers in closed spaces such as the basement, bedrooms, stairwells or corridors and thoroughfares. Canisters are best stored outside or in well-ventilated rooms.
- Do not store more than one gas container per room. Containers should always be kept upright and with plenty of distance from sources of heat.
- Keep a supply of at least nine litres of drinking water per person.
- Maintain stocks of food to last at least one week.
- Disinfectant for drinking water, such as Micropur Forte, disinfects clear tap or spring water and keeps it germ-free for up to six months. Besides bacteria, viruses as well as most protozoa and fungi are eliminated due to the oxidation effect of chlorine. You can obtain disinfectant for water at your pharmacy or in various online shops.⁵
- Keep enough cash in small denominations to pay for shopping for a period of two weeks.

You can find further information on preparing food without electricity in the [Guide – Preparing Food without Electricity](#) of the Canton of Bern.

A complete list for your emergency supplies is available on the NES website under the heading [Emergency Supplies](#).



CONSIDER HOW YOU CAN ENSURE THE NECESSARY LIGHTING FOR A PERIOD OF ONE WEEK

Prevention

- Keep walkways in your home free to minimise the risk of tripping in darkness.
- Set aside a torch (ideally a head torch) with batteries, candles, a camping lamp with gas, matches or a firelighter with gas.



CONSIDER HOW YOU CAN RECEIVE IMPORTANT NEWS FOR A PERIOD OF ONE WEEK

Prevention

- You can also receive important information from the authorities in a power failure using a battery-powered radio. While out and about, a car radio can provide news updates.
- Also inform your neighbours in the event of an emergency. It is possible that not every household has access to a receiver device.
- Mobile phones are the most common form of communication and remain so for a short while even in the event of a power failure (unless network signal is also unavailable). Prolong this time by keeping a fully charged power bank available for this purpose.

⚠ Please note that a mobile phone would be useless if a power failure lasts multiple hours, even if it still has battery charge. This is because the network would fail after a certain amount of time if antennas are no longer supplied with electricity. Phone calls, checking things online and sending text messages – all this would no longer be possible. The mobile communications network is only equipped for short outages.⁶



CONSIDER HOW YOU CAN KEEP AT LEAST ONE ROOM IN THE HOUSEHOLD WARM WITHOUT ELECTRICITY FOR A PERIOD OF ONE WEEK

Prevention

- If you have a fireplace or wood burner, keep a supply of wood, briquettes or coal.
- By preparing correctly and with professional support, you can run your heating with emergency electricity in the event of a power failure.
- Choose a certain room to heat with a grid-independent radiator (e.g. wood, petroleum, gas, ethanol). Insulate the room as well as possible. The room must allow for sufficient oxygen supply.

⚠ Please note that heat pumps and geothermal probes do not work without electricity. Without electricity, even conventional central heating systems with oil or gas have no source of ignition, no control system and no circulating pump to deliver the heated medium to the radiators. In the event of a power failure, the heating system will no longer function.



CONSIDER HOW YOU MAY CONTINUE TO USE IMPORTANT EQUIPMENT, DEVICES AND SYSTEMS DURING A POWER CUT FOR A PERIOD OF ONE WEEK OR LONGER, IF NECESSARY

Prevention

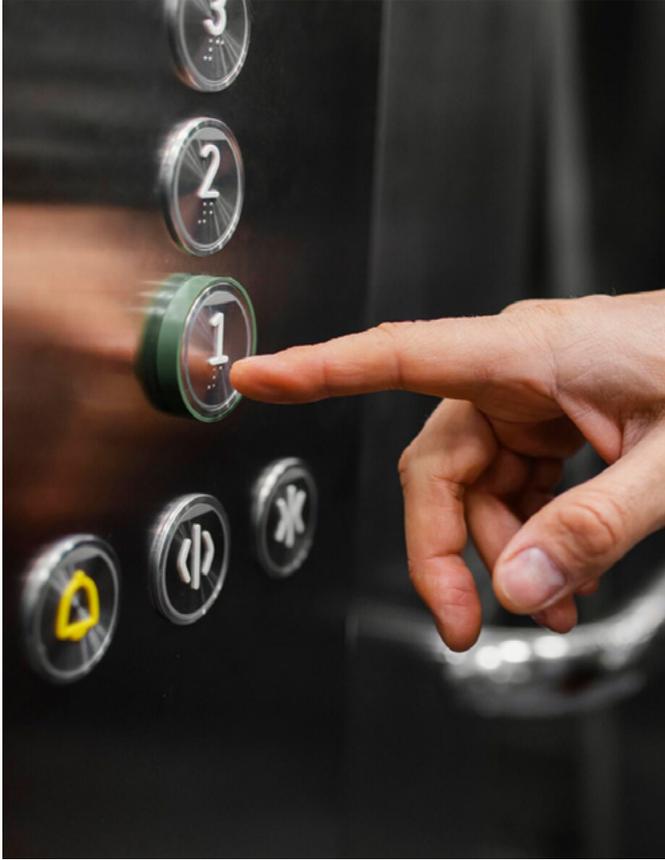
- Check which devices in the household you are dependent on and which rely on electricity (e.g. medical devices such as dialysis machines, alarm systems, pumps, etc.).
- An emergency generator can be used to power important devices with electricity for short periods. Only use an emergency generator outdoors.



CONSIDER HOW YOU CAN ENSURE HYGIENE FOR A PERIOD OF ONE WEEK (FAILURE OF TOILET FLUSHING, SHOWER, ETC.)

Prevention

- Find out whether the water supply for your household is secured in the event of power failure and in particular whether the water pressure is created using electric pumps, as is often the case in high-rise apartment blocks.
- If you are informed about an interruption in the water supply, store some water in large containers (e.g. the bath tub).
- If the water supply fails, even toilet flushing will no longer be available. A refuse bag that can be securely sealed (e.g. with tape) may be suitable as a workaround solution.



CONSIDER HOW YOU CAN ENSURE FREEDOM OF MOVEMENT IN YOUR FLAT, YOUR HOUSE OR YOUR DEVELOPMENT GENERALLY AND IN EMERGENCIES FOR A PERIOD OF ONE WEEK (FAILURE OF LIFTS, STAIR LIFTS, ELECTRIC DOORS, ETC.)

Prevention

- Check which devices in the household you are dependent on and which rely on electricity (e.g. lift, stair lift, doors, garage door, etc.).
- Configure the electric doors for use in the event of a power failure.
- Keep walkways in your home free to minimise the risk of tripping in darkness.
- An emergency generator can be used to power important devices with electricity for short periods. Only use an emergency generator outdoors.

! Please note that for security reasons, some electric doors can only be opened with difficulty, or not at all, during a power failure.



CONSIDER HOW YOU CAN COVER THE NEEDS OF YOUR PETS FOR A PERIOD OF ONE WEEK

Prevention

- Keep sufficient feed and water for your pets for a period of one week.
- In the case of an aquarium, use a gas cooker, for example, to keep the water temperature constant. (Pour warmed water into the aquarium at regular intervals.) Oxygen can be supplied using a pressurised gas bottle or oxygen tablets. An uninterrupted power supply (UPS) allows you to play it safe.⁷ In any case, seek advice from a professional.
- An emergency generator can be used to power important devices with electricity for short periods. Only use an emergency generator outdoors.

! Please note: that an aquarium can comfortably handle up to two hours without electricity. If a power failure lasts longer, this can be critical for the survival of the creatures in the aquarium.

3.2. MANAGEMENT

CONDUCT DURING A POWER CUT

- Stay calm and ensure sufficient lighting.
- Turn on the radio. Find out (possibly using battery-powered devices such as smartphones) whether specific information is forthcoming on the website of the electricity provider or via Alertswiss.
- Switch off all mains-powered devices. Check whether all devices have been disconnected from the mains. Once power is restored, switch on one device at a time. This allows you to prevent grid overloading and the unintended activation of dangerous devices.
- If your phone still works: only use the emergency numbers in emergencies and avoid unnecessary calls (risk of network overloading).
- Wear warm clothing in winter. This helps to compensate for failure of the heating system.
- Always keep refrigerators and freezers closed. If a power cut lasts more than six hours, the contents of the refrigerator must be disposed of due to the risk of spoiling. For frozen goods, this is necessary after 24 hours.
- Check whether anyone is trapped in lifts in the building. Organise help if necessary.
- Inform older people in your direct neighbourhood about the power cut.
- Get in touch with neighbours and help anyone who is alone. Get together and give each other assistance.

3.3. REGENERATION

WHEN THE POWER IS RESTORED⁸

- Check the devices that were last switched on before the power cut (e.g. hob, iron) to make sure they are actually switched off (risk of fire and injury!).
- Only switch on the devices and lights you really need to avoid unnecessary energy consumption.
- Check whether important appliances (heating, refrigerator, alarm systems, etc.) are working properly.
- Set clocks to the correct time.
- Recharge any power banks, batteries, etc. that were used in order to prepare for a possible power failure in the future.

APPENDIX

CHECKLIST

My household is prepared for an electricity shortage such that for a period of one week

- enough drinking water is available and a warm meal can be prepared without electricity,
- the necessary lighting is ensured,
- important news can be received by the household,
- at least one room in the household can be kept warm without electricity,
- important equipment, devices and systems can continue to be used in the event of a power cut (e.g. medical devices such as dialysis machines, alarm systems, pumps),
- hygiene is ensured (failure of toilet flushing, shower, etc.),
- freedom of movement is maintained in the flat, house or development generally and in emergencies (failure of lifts, stair lifts, electric doors, etc.),
- the needs of pets can still be met.
- Install Alertswiss and complete the emergency plan.

LIST OF ABBREVIATIONS

FOCP	Federal Office for Civil Protection
BL	Canton of Basel-Landschaft
FONES	Federal Office for National Economic Supply
EBL	Elektra Baselland Cooperative
EU	European Union
IWB	Industrielle Werke Basel
KFS BL	Cantonal Management Staff of Basel-Landschaft
OSTRAL	Organisation for Power Supply in Extraordinary Situations
UPS	Uninterrupted power supply
ASEC	Association of Swiss Electricity Companies
EAER	Federal Department of Economic Affairs, Education and Research
NES	National Economic Supply

IMPORTANT EMERGENCY NUMBERS

112	General emergency number
143	Die dargebotene Hand (social service)
0800 325 000	Elektrizität / Elektra Baselland (electricity utility)
118	Fire brigade
0800 400 800	Gas / Industrielle Werke Basel (gas utility)
061 553 34 34	Cantonal Police of Basel-Landschaft
061 261 15 15	Medical emergency call centre
1414	Rega (air ambulance)
144	Paramedics
147	Telephone support for children and young people
145	Poison hotline

ENERGY SHORTAGE FAQs

Many general, technical and legal questions have already been answered.

In this connection, we would like to refer you to the FAQs of the Canton of Basel-Landschaft, the NES, EnergieSchweiz, OSTRAL and Prime News via the Basel Region Employers' Association:

https://www.baselland.ch/politik-und-behorden/direktionen/sicherheitsdirektion/kantonaler-fuehrungsstab-bl_kfs/energie/was-ist-energiemangellage

<https://www.bwl.admin.ch/bwl/de/home/themen/energie/energie-aktuelle-lage.html>

<https://www.ostral.ch/de/media/2740/download>

<https://www.energieschweiz.ch/faq/>

<https://www.arbeitgeberbasel.ch/dienstleistungen/recht/themen-artikel/energiemangellage/>

¹ Quelle: www.bfe.admin.ch/bfe/de/home/versorgung/statistik-und-geodaten/energiestatistiken/gesamtenergiestatistik.html

² Quelle: www.bwl.admin.ch/bwl/de/home/themen/versorgungslage.html

³ Quelle: https://gazenergie.ch/fileadmin/user_upload/e-paper/GE-Jahresstatistik/VSG-Jahresstatistik-2021.pdf

⁴ Quelle: www.swiss-retail.ch/news/der-detailhandel-hat-die-versorgung-der-bevoelkerung-nachhaltig-gesichert-hamsterkaeufe-sind-absolut-unnoetig/

⁵ Quelle: www.katadyn.com/Downloads/katadyn/factsheets/micropur/8014258_8013662_8017906_Micropur%20Forte_tablets_de.pdf

⁶ Quelle: www.aargauerzeitung.ch/schweiz/mobilfunk-ohne-strom-kein-handynetz-dieselaggregate-koennten-ausfall-ueberbruecken-doch-die-aufreue-ung-verzoegert-sich-ld.2319607

⁷ Quelle: www.aquaristik.org/wissenswert/stromausfall-bei-einem-aquarium-auf-was-muss-ich-achten/

⁸ Ergänzungen aus www.saurugg.net/blackout/vorbereitungen-auf-ein-blackout

