

## › DEALING WITH THE CORONAVIRUS

### Sharing the Experience of German Local Public Utilities in the Water, Energy, and Waste Sector

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The German Association of Local Public Utilities „Verband kommunaler Unternehmen“ (VKU) represents around 1,500 local public utilities in Germany, operating in the sectors of energy, water/waste water, waste management and telecommunication. In 2017 the members of VKU, with their 268,000 employees, generated a turnover of more than 116 billion Euros of which around 10 billion Euros were reinvested. In the end-customer segment, VKU's member companies have a market share of 61 percent in the electricity market, 67 percent in the natural gas market, 86 percent in the drinking water sector, 70 percent in heating supply market and 44 percent in the market of waste-water disposal. They also dispose of 31,500 tons of municipal waste each day and take a vital role in ensuring recycling rates of 68 percent, which rate the highest within the EU. Additionally, more and more local public companies are committed to the expansion of broadband networks. The number of public companies active in this field has more than doubled in the last four years: alone in 2017 around 180 companies invested over 375 million Euros. Since 2013 they have been increasing their investments by around 30 percent each year and expand future-proof infrastructures for the digital community (i. e. fiber optics or Wi-Fi) anywhere in Germany.

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## Preface

Amidst the Corona-Pandemic, utilities worldwide face unprecedented challenges. In order to fulfill their duty and provide basic services, many have to take drastic measures and precautions to ensure service continuity. In Germany, public utilities have connected through a web portal exchanging ideas, experiences and solutions in dealing with the crisis. This paper will summarize the most important lessons learned and seeks to make them available to public utilities all over the world so that all may benefit from our experiences. As resources are sparse and currently reserved for the fight against the Coronavirus, this paper can only be made available in English. However, we invite anyone having the necessary resources to translate this paper into any language required.

The experiences listed in this paper are neither definitive nor final and we cannot guarantee their effectiveness in your respective country and situation. However, we hope that our experiences may nevertheless be of assistance to you. We have summarized the individual experiences in two main sections: First, we discuss general experiences, for instance regarding general operation of utilities and plants, staff management or dealing with infections. Second, we canvass the experiences made by the individual sectors, namely water, energy and waste. You may use the table of contents to jump to the specific section or topic that interests you the most, as there are hyperlinks embedded in the document.

From all of us at the German Association of Local Public Utilities (VKU) we wish you health and strength in these difficult times.

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## General Experiences

### Install an Emergency Council

The emergency council should meet daily and constantly evaluate the development of the crisis. It should also seek to be involved or at the least informed by any official council that might have been installed by the local municipality. Use your council to inform about all possible and probable challenges you might come to face during the crisis.

Information from the council should be disclosed immediately via various means of communication like email, messengers, notice boards, and others. Be careful to use diverse means of communication in order to reach as many people as possible and avoid crowds at public notice boards.

### Enact Emergency Plans

If applicable, any emergency plans should be put into action. Where necessary, adjust the plans to fit the current situation in your municipality and company. Therein, expand any directives and disruption concepts to fit a possible shortage of workers or quarantines.

### Define Key Functions

Define functions and/or areas of your company which must be kept running at all costs. Train additional staff to operate these areas. Furthermore, temporarily expand the number of staff responsible for operating business. As key personnel might fall ill or be quarantined, this will keep services running.

### Home Office Wherever Possible

If and where possible, find ways for employees to work from home. In order to replicate the social components of the office as much as possible, issue social guidelines. For instance, recommend phone calls instead of emails, organize video conferences and chats where work might not be the focus. Emphasize that the employer understands that home office can be challenging and stressful over a prolonged period – especially for those with small children at home.

Realize the opportunities home office brings, such as establishing digital communication practices via various channels. This experience can be viewed as a trial run for a future work environment in which working from home might become more of a norm.

### Make Use of Multiple Locations

Multiple locations and facilities can be utilized for social distancing while still being able to offer your employees a workstation outside their home. This proves to be especially valuable where home office is not easily realizable. Be sure to provide the

best infrastructure you can and assign your employees to the workplace best suited for their tasks.

### **Work in Shifts Even if There is No Strict Necessity**

Working in shifts can be a great way to ensure social distancing. Even if it is not strictly necessary for a given task, it may be possible to structure work routines in a way in which as few workers as possible are present at the facilities at any given time. Additionally, you can make use of separate rooms in your facilities in order to keep workers separated who might work the same hours.

Expanding hours of operation might also prove useful. Contact between workers can be minimized if some come earlier while others stay later.

Some companies have reduced shifts to six hours. In accordance with German labor law, no breaks are required during shifts of six or less hours, thereby facilitating social distancing.

### **Assign Drop-Off Locations**

Deliveries and mail should be dropped off at specifically assigned locations. You may find individual agreements with specific deliverymen or put up signs guiding them to the assigned location.

### **Limit Time Spent in Public Spaces and Work Yards**

Find rules limiting the time workers spend in public spaces and the work yard. For instance, find rules that workers must leave the premises immediately after their shift ends. Close down canteens or offer food to go. Breaks should be taken so that the formation of groups is inhibited.

### **Build Core Groups**

To ensure that all utilities can be kept running, many utility operators in Germany isolated service groups from one another. The goal was to minimize contact among employees so that if one group would be quarantined others would not be at risk and service could go on. Thus, contact between teams should be limited. For this, multiple measures are possible:

- Close any meeting grounds like break rooms and canteens.
- Rearrange work schedules so that overlap between shifts are avoided where possible.
- Where contact is unavoidable (for instance work clothes provision), be sure to offer sanitizers, ensure that distance is kept and can be kept (for instance by extended opening hours and door policy) and sensitize workers for the measures taken.

These measures should also apply to executives to ensure that substitutions can be arranged where necessary.

## **Voluntary Quarantines**

Some workers might offer to quarantine themselves at home or at work („living at the workplace“). This way, they will be guaranteed as a workforce. Support these workers wherever you can and limit their time spent in isolation to minimize the risk of psychological challenges.

## **Closure of Childcare Facilities**

If and when childcare was closed down, German utilities and their employees showed great flexibility in dealing with the situation wherever work routine permits. Further, using up acquired overtime and vacation days can be useful when childcare cannot be guaranteed otherwise.

In any case, advocate for preferential treatment towards public administration so that workers in critical infrastructure still have access to childcare, even during lockdown.

## **Discontinue Rotary Concepts**

Common rotary concepts, especially during training, should be discontinued or postponed.

## **Keep Workers in Reserve**

Where workers are not essential for core business it can be worth considering whether they may be sent home to keep them as a reserve for core areas. In case that core teams are contaminated, reserve workers might prove essential in keeping up with service provision.

## **Digitize Services**

Where possible, offer services to customers exclusively as online services. This approach might even accelerate digitization of services in general. Be careful to evaluate progress and measures taken. They might prove useful in the digital future.

## **Inform Customers and Citizens**

Through digital services and media, keep your customers informed about any measures that might affect them. Explain why the measures taken are necessary in order to avoid complaints.

## **Means of Communication**

Establish secure and reliable means of communication and make sure only those are used for work purposes. These channels prove useful as a direct means of sending information and updates concerning the current situations and measures taken.

## **Business Trips and Meetings**

Reduce business trips as well as physical meetings within your organisation and with third parties to a minimum. As an alternative, you may offer video conferences.

## **Hygiene**

Ensure and regularly check the availability of soap, disinfectants, and paper towels in sanitary facilities. Adhere to rules and regulations on hygiene put forth by the responsible authority. Furthermore, it may prove useful to require workers to wear fresh clothes every day and provide extra work clothes and protective gear. In case workers are quarantined, get into contact with the responsible public health authority.

Disinfect contact surfaces such as door handles daily.

## **Regional Cooperation**

Regional cooperation can be useful in preparing for challenges arising from Covid-19 such as shortage of staff. Redundancies can be built up regionally and solidarity can help to secure the operation of critical infrastructure.

## **Confirmed and Suspected Cases**

If contact between employees and suspected or confirmed cases has likely occurred, all contact to the effected employees should be cut immediately. Employees can be sent to work from home, be spatially separated or sent on paid leave.

Employees who are infected (and tested positive) with coronavirus, any measures should be undertaken to identify any and all contact persons, who should be quarantined and tested. Where applicable, the responsibility for testing falls to the local or regional health authority.

## **Working Infected**

Some workers may be of such significance and irreplaceable that they are required to continue work even though they are infected. Provided the severity of their individual case permits them to continue working, quarantine corridors can be put in place, which define who will be present while the worker in question is on site. These quarantine corridors and a range of accompanying measures should be discussed and established in close cooperation with the responsible health officials to eliminate any chance of contact and second-hand contact to the infected worker.

## **Lockdown**

If a lockdown is issued and implemented by the government, workers of utilities should be given permits to go to work. Especially those who fulfill duties critical for system operation must be able to reach their designated workspace.



Be careful to establish early contact to authorities and sensitize for the need for permits in case of lockdown. All utilities discussed here are relevant for system and societal operation.

## Water

### Toilet Paper

Hoarding toilet paper has been one of the more unforeseen developments of the crisis. This can lead to issues in the sewage system as people who were unlucky and did not find any more toilet paper might use sanitary napkins or other fabric that does not dissolve in water instead. Start early to sensitize the public that the fibers in sanitary napkins other than toilet paper will lead to clogging – either in the sewers or in their own plumbing at home.

### Urgent Repairs and Maintenance

Postpone any maintenance work that is not immediately necessary and prioritise urgent repairs. Ensure the continued operation of infrastructure. Advocate suspending or postponing any deadlines by the authorities for non-urgent maintenance.

### Repairing Private Connection

Private connections should still be repaired where possible. Special precautions to avoid contact between workers and customers should be put in place.

### Installing Private Connections

Private connections are still installed in Germany, as far as the situation allows for it.

### Workers of Special Significance

Workers with significance to system operability should receive preferential testing. These workers may be control room workers, metalworkers and locksmiths, electricians, and others who are indispensable for the daily operation of plants.

### Protective Gear

Workers in water treatment and provision are especially in need for personal protective gear, such as masks and gloves. This need should be advocated early with the authorities so that in case a shortage arises, water workers will be provided with all necessary protective gear.

### Construction Sites

As far as a safe work environment can be guaranteed, construction sites can be kept open. This may prove useful in the aftermath of the pandemic, as due maintenance and investment backlogs are circumvented.

Reduce contact to other companies on construction sites to a minimum.

## **Planned Construction**

Any plans for new construction sites should be postponed until their completion in due time can be ensured. This is especially relevant if the construction in question would require a temporary shift to emergency provision in the area.

## **Sludge**

Testing sludge should be reduced, as fewer workers are available in laboratories in order to prevent staff bottlenecks. If decisions on the matter have not yet been made by authorities, be sure to advocate for contingency planning in this area.

As there may come a need for extra storage space if sludge can no longer be disposed of in the usual way, the implications should be discussed early with the authorities so that a solution for safe storage of excess sludge may be provided.

## **Testing Drinking Water**

Some utilities continue to test drinking water in public facilities such as schools. However, as staff shortages may arise and exposure to the virus is more likely, testing in private households should be postponed.

Some utilities have already found an agreement with the responsible authority on a minimal service plan in terms of the testing of drinking water. This usually includes the testing for iron, manganese, and disinfection by-products in the preparation of drinking water.

## Energy

### Clarify Absolutely Necessary Tasks

Define necessary tasks. For instance, repair work might be necessary and should be kept up while maintenance might be postponed to a later date. By focussing on urgent tasks only, workers can be kept apart more easily and safety equipment like masks, gloves, and disinfectant can be provided.

### Identify Bottlenecks

Some areas of operation might become bottlenecks amidst the corona crisis. These are to be expected in areas where knowledge and authority are limited to a small number of individuals. Be sure to address this possible threat to operation by making knowledge and access available to other personnel as soon as possible. This includes sharing or making available keys, key cards, passwords, etc. for the operation of critical infrastructure and services.

### Vacation Ban

Vacation bans may be considered for employees and executives working in areas of critical infrastructure. For instance, members of management, members of emergency councils, and control room workers may be considered especially critical. Any claims resulting from canceled vacations should be evaluated with regard to responsible agents. However, keep in mind that any costs arising from cuts from cancelling events, vacations, continued payment of workers' wages during quarantine, and paid sick leave will be considerably less than those costs that would arise if energy supply cannot be continued.

### Separately Operating Teams

Teams operating separately and independently from one another can secure operation of the plant, since cases in one team will not affect the others. This can prove useful especially in the operation of critical infrastructure.

Be aware that not only will geographical separation be necessary (one team on site while the other works from home), yet workstations will also be required to be disinfected after each shift. General cleanliness should be expected and expanded as the virus can be transmitted via contact with surfaces.

Furthermore, a contact ban that expands to the private sphere must be enacted upon workers. Workers of separate teams must not meet to not compromise any success. As soon as one team is suspected of having an infection, start building up further redundancies while the other team takes over.

Some utilities build up further facilities in order to support the separation of teams.

### **Exchange through Crisis Council**

Establish a regular exchange of experiences and best practices with key actors in your municipality, such as the city administration, fire brigade, police, emergency services, and municipal services such as waste collection and water and sanitation services. Share any information and gather any information through this council that may effect your operation or others' operation.

## Recycling and Waste Collection

### Decluttering

Since many are isolated and working from home, decluttering of homes has seen some unforeseen popularity. This had the effect that recycling stations had to close down and trash collection faced unusually large amounts of garbage from homes. If possible, communicate early that any decluttering and renovations of the home should be left for after the crisis to avoid unnecessary strain on waste collection and handling.

### Prioritise Garbage Collection

As teams are contaminated, there might be a shortage of workers, which leads to a need to prioritise garbage collection. The following guidelines have proven useful:

- Densely populated areas take priority over sparsely populated areas
- Hygienically relevant waste will be prioritised. Medicinal waste from hospitals, doctors' offices (including veterinarians) and nursing homes take precedence over organic waste and residual waste. Recyclable fractions as well as lightweight packaging follow before paper and bulky waste will finally be collected with the lowest priority.
- Services such as the collection of bulk waste and green waste may be temporarily halted and collection sites closed.

### Contaminated Waste

Although there are to this date no cases known where SARS-CoV-2-Virus was transmitted via contact with garbage from homes with known cases, it cannot be ruled out that this way of transmission is generally possible. Therefore, infected people in quarantine at home may be asked to not separate their waste, yet dispose of it as residual waste. They should use tied up bags for disposal.

German municipal waste utilities do not know which households are affected by corona virus and, thus, cannot adjust accordingly. They need to dispose of garbage as their customers provide it. Therefore, it can be helpful to publically argue for briefings of infected people encouraging them to not separate and only use residual waste. Residual waste is mostly burned and poses, therefore, no threat after treatment.

### Strike Plans

In case staff shortages are foreseeable, revisit your strike plans if you have any. In these, prioritisation might have already been established.

### Vacant Public Facilities

Some utility operators started using public swimming pools, gymnasiums, and sports grounds to build up redundancies especially since these are currently closed down and have changing rooms.

## Utilizing Private Vehicles

In order to avoid sitting closely together in garbage trucks, some utility operators allowed for the use of private vehicles to get to collection districts. Furthermore, some organised for workers to be transported with alternative vehicles.

## Vehicle Hygiene

Teams are requested to clean cabins at every end of shift as well as on shift changes. Vehicles of the sanitation department are cleaned by a specifically appointed hygiene officer after shifts end.

## Driver Reassignment

Drivers of the sanitation department can be reassigned to garbage collection as it takes precedence over city cleaning.

## City Sanitation

Depending on the development of the situation, cutbacks with the city sanitation might be arising. Therefore, citizens are called upon to make extra efforts to keep the city clean.

## City Amenity Sites

Some German utilities have closed down or limited opening hours of their amenity sites. Amenity sites have a low priority in the provision of services, thus it should be discussed whether a shutdown can be beneficial to either the continuation of core services or the health of employees. These criteria have been applied in decisions to close amenity sites:

- Reduced staff due to pandemic, therefore reassignment of remaining staff to core services
- Assuring that garbage collection is prioritised
- Percentage of workers at amenity sites who are considered high-risk groups
- Availability or lack thereof of protective masks
- Discipline of customers in using amenity sites
- How relevant amenity sites are in comparison to collection systems for the security of collection
- Location of amenity sites and their affect on city traffic especially if frequency of use is elevated. If heavy traffic was to build up due to extended use of amenity sites, closing the sites was considered.
- Ability to adjust opening hours in order to rectify customer traffic
- Possibility to restrict processing of certain key fractions of waste or customer groups

## **Workshops**

Shifts should be adjusted so that contact between workers is reduced where possible. Rescheduling so that individual shifts will not meet has proven useful. Workstations can be assigned and limited for use by certain personnel only while keeping a distance to other workstations of at least two meters. If possible, a second temporary workshop can assist in rectifying situations and providing workstations for as many employees as possible.

## **Bulk Waste**

Some utility operators no longer collect bulk waste in order to provide the necessary personnel for core services and being able to build up redundancies. Others still collect bulk waste, yet adhere to guidelines reducing contact to customers (i.e. bulk waste is not collected directly from inhabited buildings, cash payment is no longer accepted).

## **Mobile Collection**

Mobile collection of hazardous waste, for instance, is no longer offered.

## **Waste Management Plants**

Most waste management plants are closed for customers and visitors.

## **Campaigns**

Campaigns like “Let’s cleanup Europe” are halted or postponed to a later date.

## **Education**

All education efforts are temporarily discontinued. Set dates can be postponed. Consulting and advisory services are limited to contact via telephone, email or mail.