

Organisation: **Broenderslev Water Company (BWC)**

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### Smart Network and Leakage Management

#### Main findings

- ~ **Consumers** face fewer breakdowns in the distribution network and fewer leaks in domestic installations. Due to our Direct Service, which provides adequate and quick responses on individual meter-alarms every day. In addition, there are reduced insurance costs for the ruined floors and spoiled household goods.
- ~ **Community** gains by identifying leaks more rapidly leading to fewer complications on infrastructure. 'down time' is also reduced as are the external costs for repairing streets, footpaths and pipes. There is also less interference with traffic, and less disruption.
- ~ **Company** wins by having a targeted leakage detection. Low leakage rates prevent penalty taxes and reduces repair costs. Subsequently, expanding supply security and directing the scarce supply of capital more towards renewing of the distribution network rather than repairing.

A holistic approach supporting UN Sustainable Development Goals no. 12, Ensuring sustainable consumption and production is reflected in the above described sustainable business practice and consumer behaviour



#### Summary

Due to an unexpected and serious water loss situation, BWC in 2017 increased efforts to identify leakages based on readouts from Smart Meters (SM) and the SCADA system. Combining data provides the opportunity to determine differentiated water losses at the established metering sections leading to a more targeted leakage detection on a monthly basis. From 2020 on daily basis.

BWC installed the first Smart Meters and the antenna net in 2014. By fall 2018 we are covering the total distribution area equalling 6.000 meters.

#### Methodology

The key elements are:

1. Installation of Smart Meters for every consumer
2. Almost 100% radio based hourly reading of all meters
3. Sectioning of distribution network (District Metering Areas)
4. 24/7 surveillance at strategic points in the distribution network
5. Direct Service (phone and email) to consumer
6. Staff competence and awareness.

#### Conclusion and further information

Use of Smart Meters not only provides us with easy and precise billing opportunities. The Smart Meters have proven to create substantial added value by preventing severe impacts from water leakages for both consumers, community and company.

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