

# Smart Metering in Estonia

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gaasivõrk

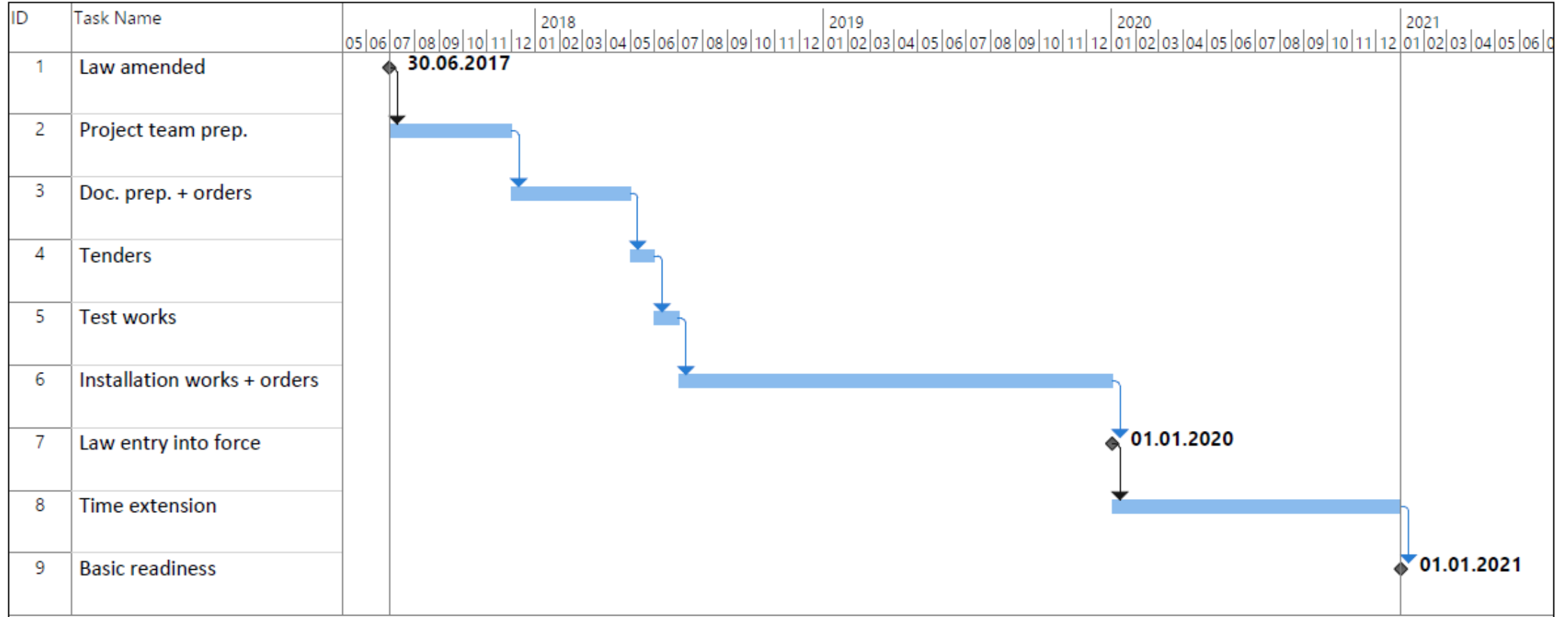


## Natural Gas Act

[RT I, 30.06.2017, 2 – entry into force 01.01.2020]

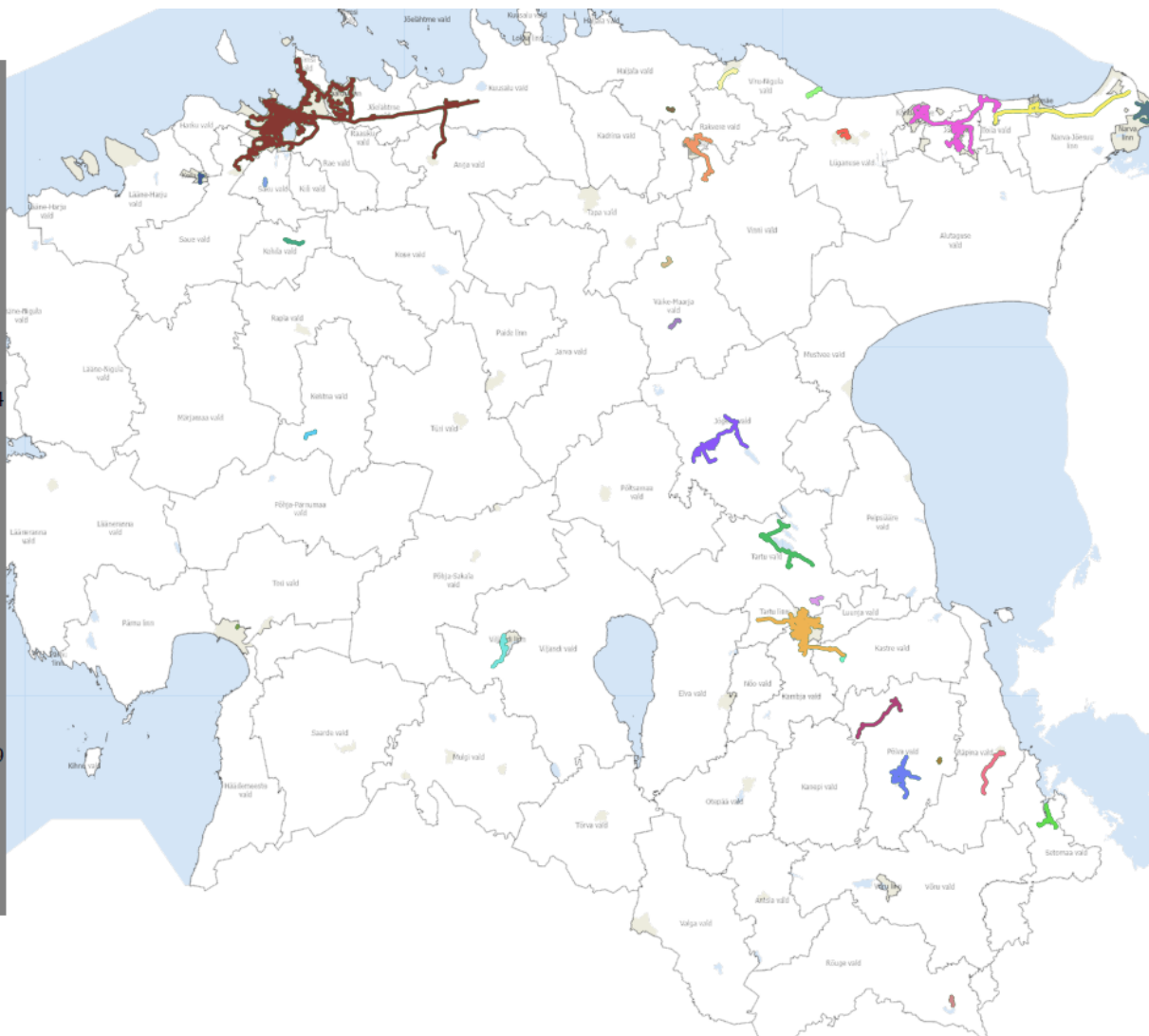
§ 24. (1<sup>3</sup>) A network operator must ensure that any metering point through which a quantity of at least **750 cubic metres** of gas is consumed from its network in a year is equipped with a metering system which, when measuring the quantity of gas, takes into account the temperature of gas in the metering system, and allows for **remote reading of metering data.**

# Time line



# Scope

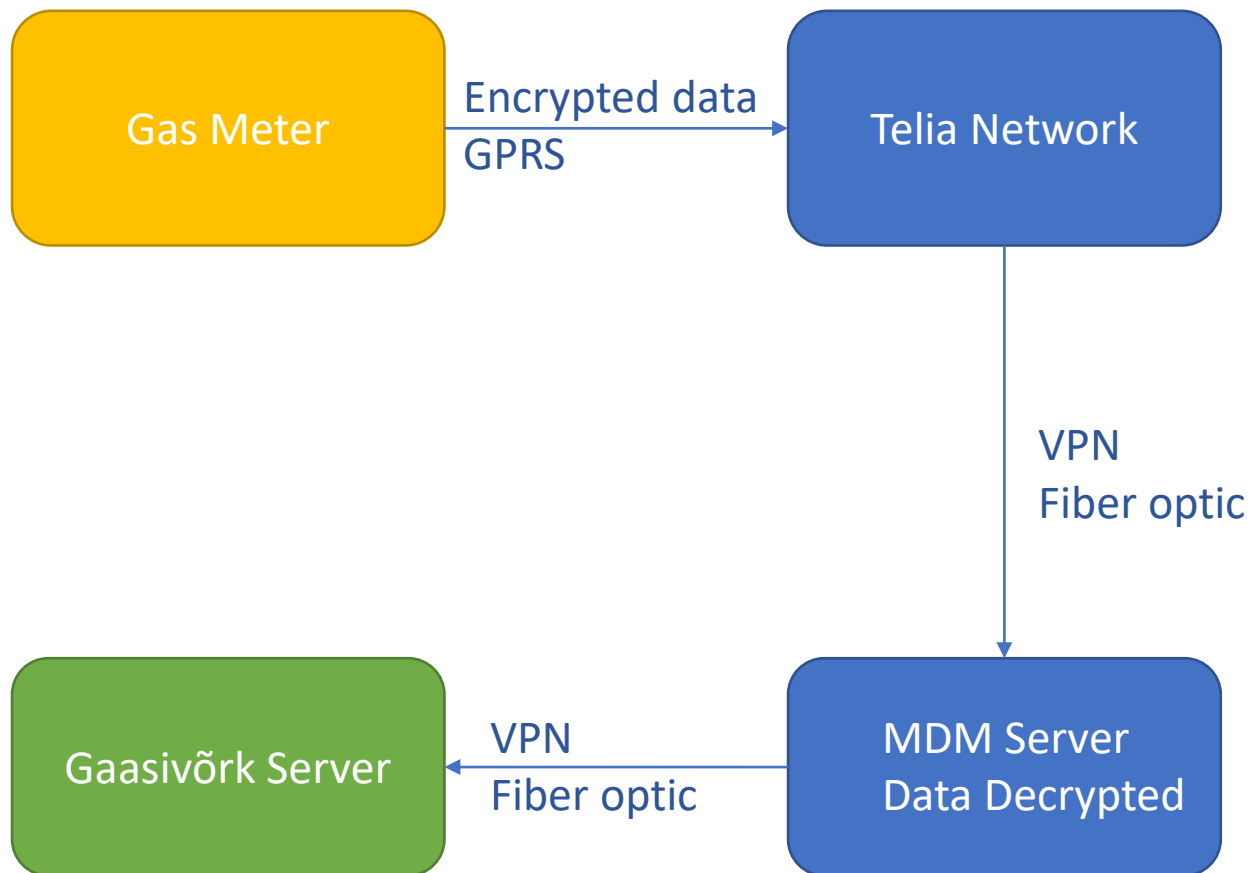
Layer
Ahja GJJ,VPLE01
Aseri GJJ,VPVI01
Järvakandi GJJ,VPTL01
Jõgeva GJJ,VPLE02
Kauksi GJJ,VPLE03
Keila GJJ,VPTL02
Kiviõli GJJ,VPVI02
Kohila GJJ,VPTL03
Kohtla-Järve GJJ,VPVI03
Kunda GJJ,VPVI04
Loo-Raudalu-Kuusalu GJJ,VPTL04
Miina Härma GJJ,VPLE04
Misso GJJ,VPLE05
Narva GJJ,VPVI05
Pärnu GJJ,VPTL05
Põlva GJJ,VPLE06
Rakke GJJ,VPVI06
Rakvere GJJ,VPVI07
Roiu GJJ,VPLE07
Saku GJJ,VPTL06
Sillamäe GJJ,VPVI08
Tartu-Roiu GJJ,VPLE08
Vedu GJJ - Saadjärve GJJ,VPLE09
Veriora GJJ,VPLE10
Viljandi GJJ,VPLE11
Viru GJJ,VPVI09
Väike-Maarja GJJ,VPVI10
Värskla GJJ,VPLE12





- A1 Gasmeter
- Size G16- G25
- Type: Honeywell ThemisPluss
- With Temp. measuring and compensating
- With pressure measuring and compensating
- Communication type: GPRS

- A2 Gasmeter
- Size G4- G6
- Type: Honeywell BK\_GXETe
- With Temp. Measuring and compensating
- Communication type: GPRS

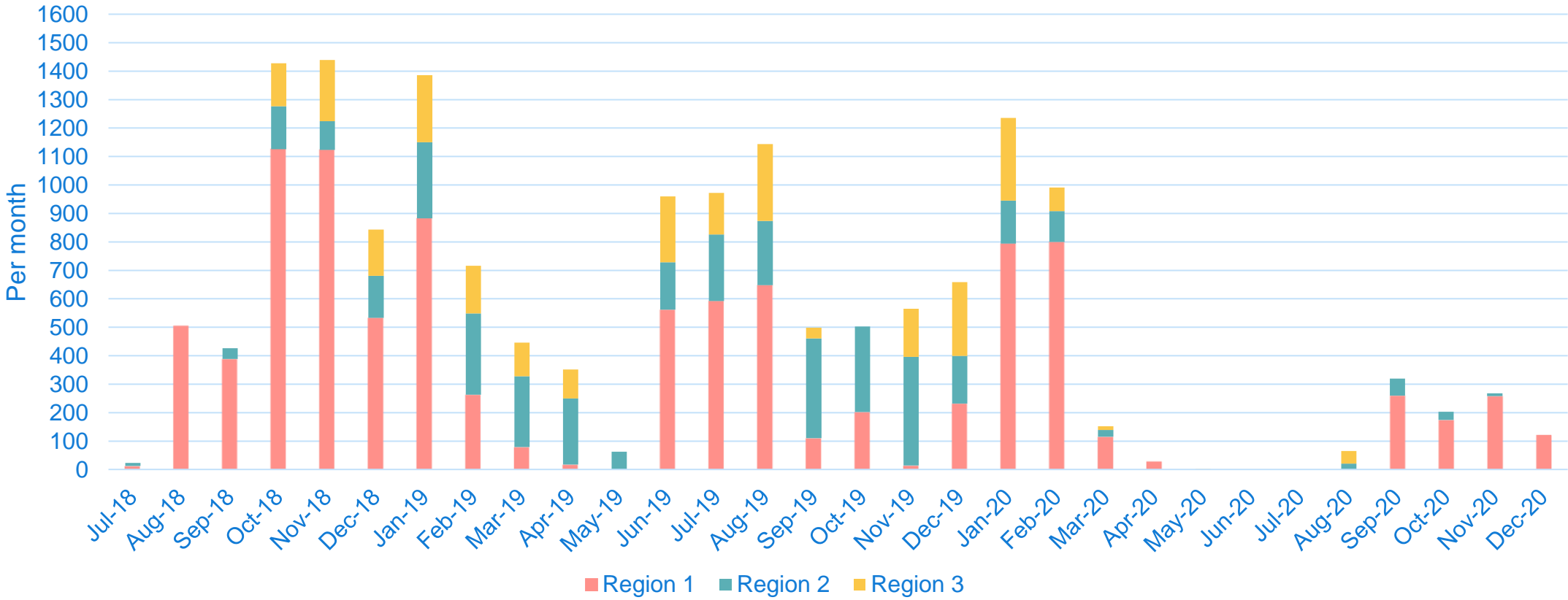


## Data flow

Gasmeter sends out data every day in same time and gets updates from MDM server.

Conection and data are both encrypted.

# Meters Installed, 2018-2020





G 4 BK

TSQ 143/95-129 „t“

$Q_{\max}$  6 m<sup>3</sup>/h

$Q_{\min}$  0,040 m<sup>3</sup>/h

V 1,2 dm<sup>3</sup>/ot



0558743

I - 1996

$P_{\max}$  20 kPa

1 imp  $\hat{=}$  0,01m<sup>3</sup>

1 5 9 8 7,0 1 0 m<sup>3</sup>



PREMAGAS STARÁ TURÁ

System:

krom/schroder



Suggestions to  
producers!

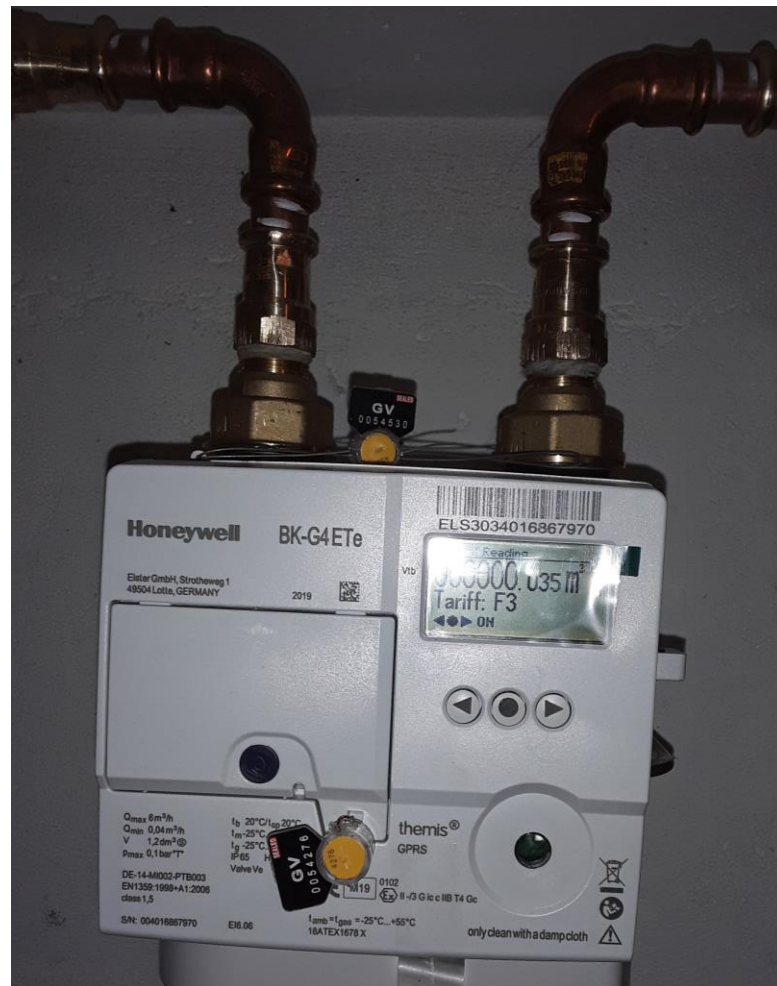


# Benefits

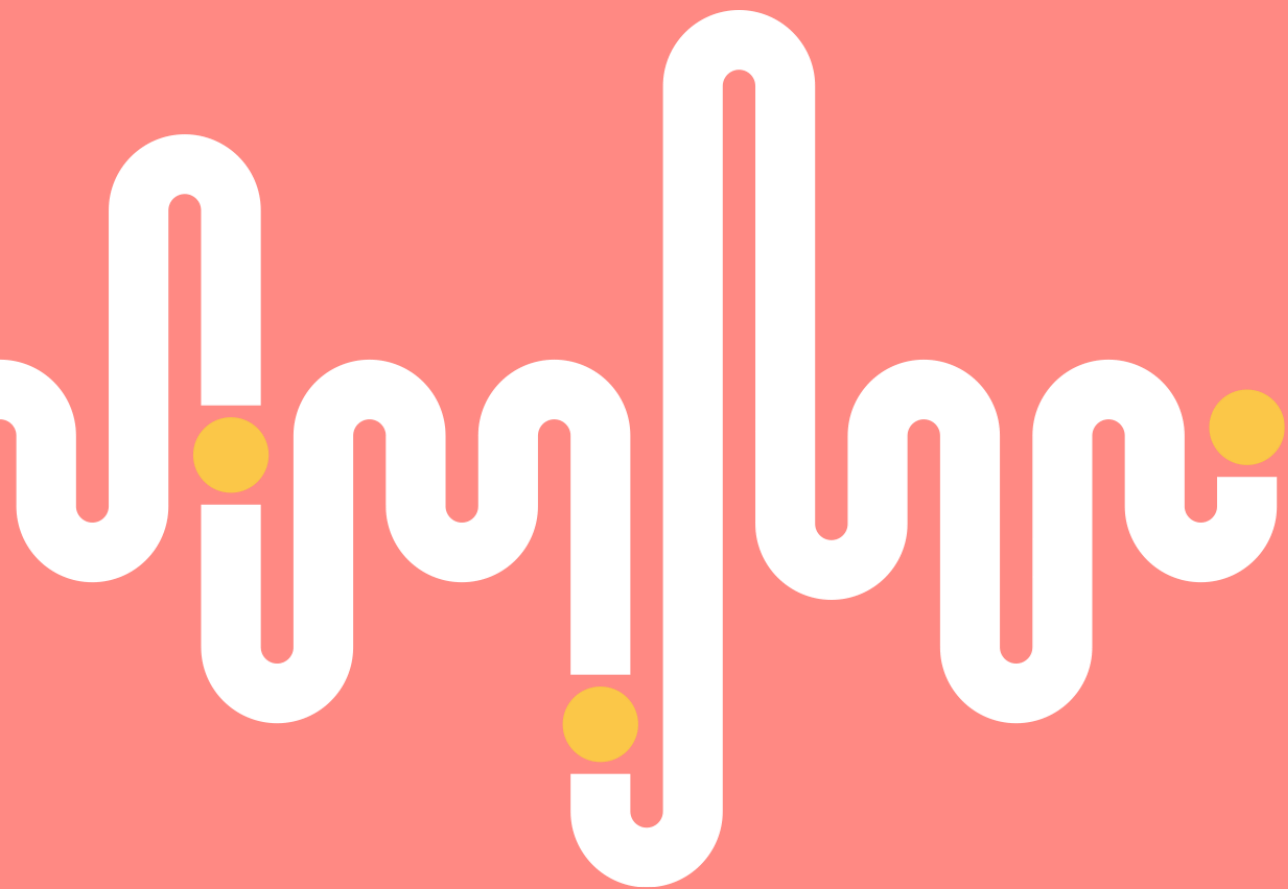
- Reduction of measured „gas loss“ 0.2%
- More than 1000 updated client contacts
- Upgrade/renovation of gas grid (connection points)
- Possibility to close the gas flow remotely
- Possibility to integrate gas meter data to Smart home systems

# Downsides

- Possible cyber security risk
- Software malfunctions
- Maintenance need



**Renovated  
connection point**



**Questions &  
Discussion!**

**Thank You!**