

## Overview of the results of the household CHR22 Single woman, 1 child, with work 0

Calculation Time

Freitag, 1. Januar 2016 - Sonntag, 1. Januar 2017

Energy Intensity: Random

Seed 100

LoadProfileGenerator 5.8.0.16019

by Noah Pflugradt

<http://www.loadprofilegenerator.de>

Rendering date:16.12.2016 09:15:58

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## Totals

### Totals for each Loadtype

Load Type	Value	Unit
Cold Water	17106.24	L
Electricity	1082.78	kWh
Warm Water	51505.25	L

### Totals for each Loadtype per Day

Load Type	Value	Unit
Cold Water	46.74	L
Electricity	2.96	kWh
Warm Water	140.72	L

### Minimum and Maximum for each Loadtype

Household	Minimum	Maximum	Unit
Cold Water	0.00	11.16	L/Min
Electricity	1.10	6031.41	Watt
Warm Water	0.00	17.50	L/Min

### Totals for each Loadtype per Person

Load Type	Value	Unit
Cold Water	8553.12	L
Electricity	541.39	kWh

Warm Water	25752.63	L
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### Totals for each Loadtype per Person per Day

Load Type	Value	Unit
Cold Water	23.37	L
Electricity	1.48	kWh
Warm Water	70.36	L

## Persons

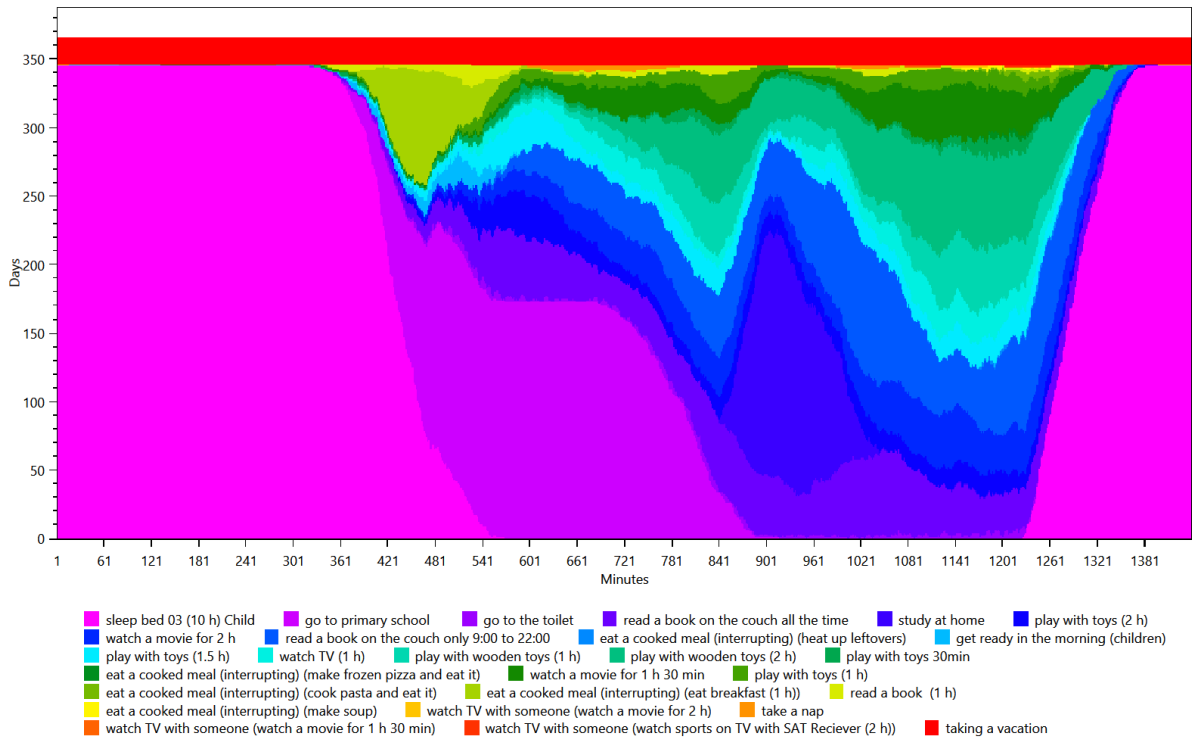
- HH0
  - CHR22 Anja (7/Female)(7/Female)
  - CHR22 Fiona (28/Female)(28/Female)

# Activity Frequency Charts

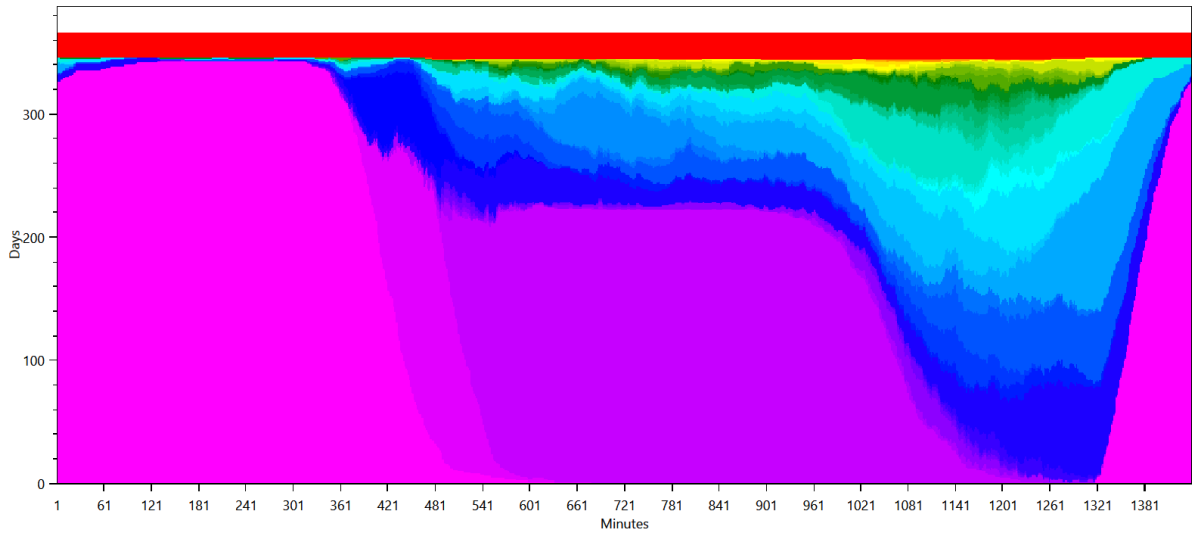
This is made from the files starting with: **ActivityFrequenciesPerMinute**

These charts show an ordered distribution of times of the activities of each person. This helps with judging quickly if a person is sleeping correctly and if they are going to work regularly.

HH0 - CHR22 Anja (7 Female)



# HH0 - CHR22 Fiona (28 Female)



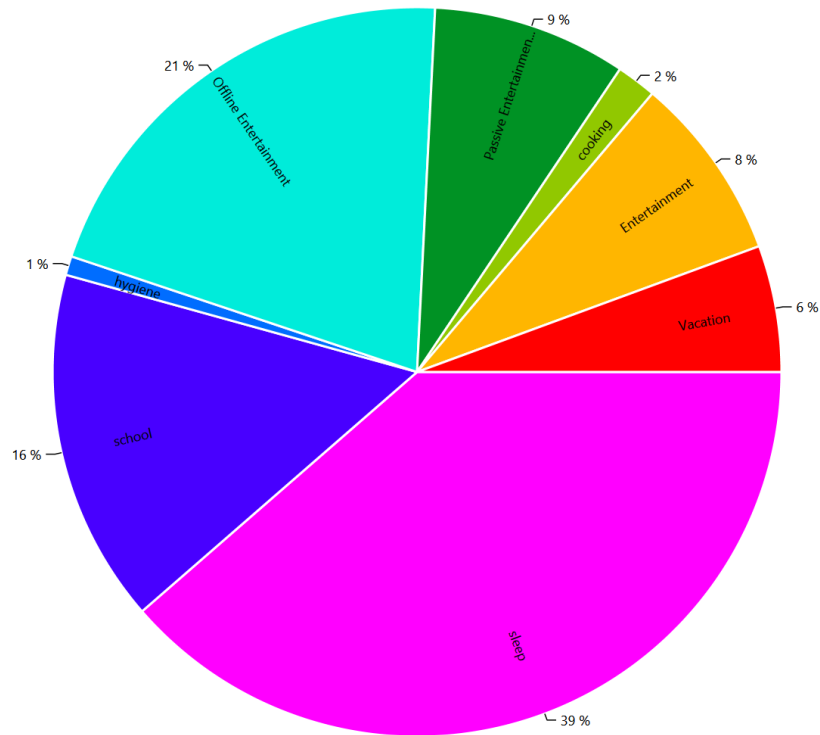
- sleep bed 08 (08 h)
- eat breakfast (1 h)
- work at the office from 8:00 (9 h)
- go to the toilet
- take a shower with hair washing (women) (20 min hair drying)
- do laundry at 30°C (by variable)
- wash 1 dishes by hand
- heat up leftovers
- use the laptop for Internet, Movie, Music, News (2 h)
- get ready in the morning (women)
- hang up laundry outside
- go shopping for food in the supermarket (1.5 h)
- use the laptop (1.5 h)
- wash 3 dishes by hand
- take a nap
- read a book on the couch only 9:00 to 22:00
- take a shower without hair washing (women)
- use the laptop (1 h)
- make frozen pizza and eat it
- read a book on the couch all the time
- go to a dancing class
- cook pasta and eat it
- wash 2 dishes by hand
- make soup
- clean the bath
- take a shower with hair washing (women) (5 min hair drying)
- make origami art
- do laundry at 60°C (by variable)
- watch TV with someone (watch TV (1 h))
- vacuum the household
- fry two eggs and eat them with toast
- watch TV with someone (watch a movie for 1 h 30 min)
- wash 4 dishes by hand
- make and drink tea (15 min)
- watch TV with someone (watch a movie for 2 h)
- read a newspaper for 30min
- read a magazine
- take nap on the weekend (2 h)
- watch the news
- wash 5 dishes by hand
- watch a movie for 2 h
- cuddle and sleep (take a nap)
- read a book (1 h)
- watch a movie for 1 h 30 min
- watch sports on TV with SAT Reciever (2 h)
- taking a vacation

# Activity Distribution per Person

This is made from the files starting with: ActivityPercentage

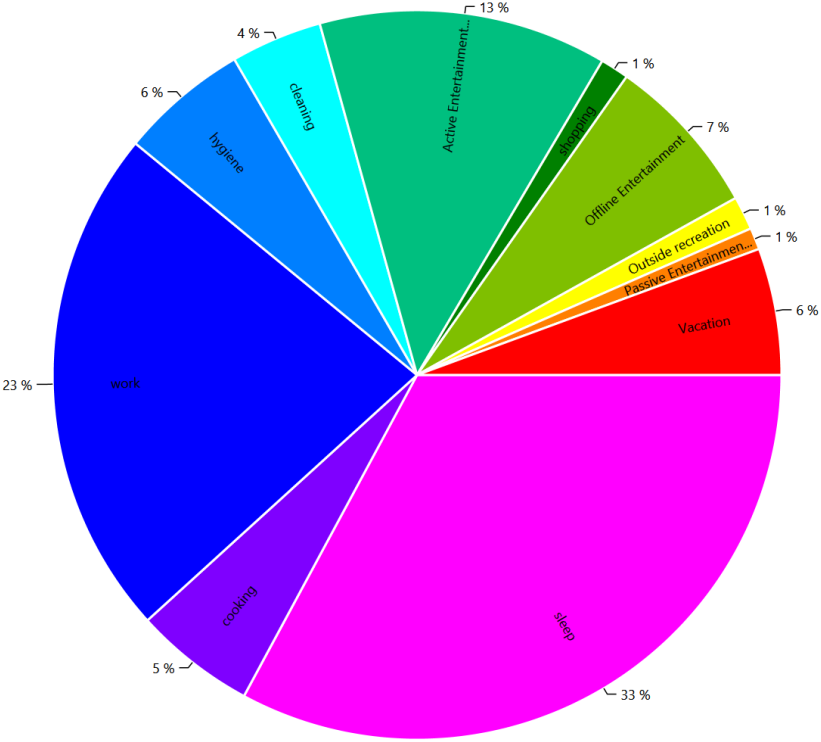
This shows the distribution of the activities, grouped by the affordance AffordanceToCategories.

HH0 - CHR22 Anja (7 Female)





HH0 - CHR22 Fiona (28 Female)

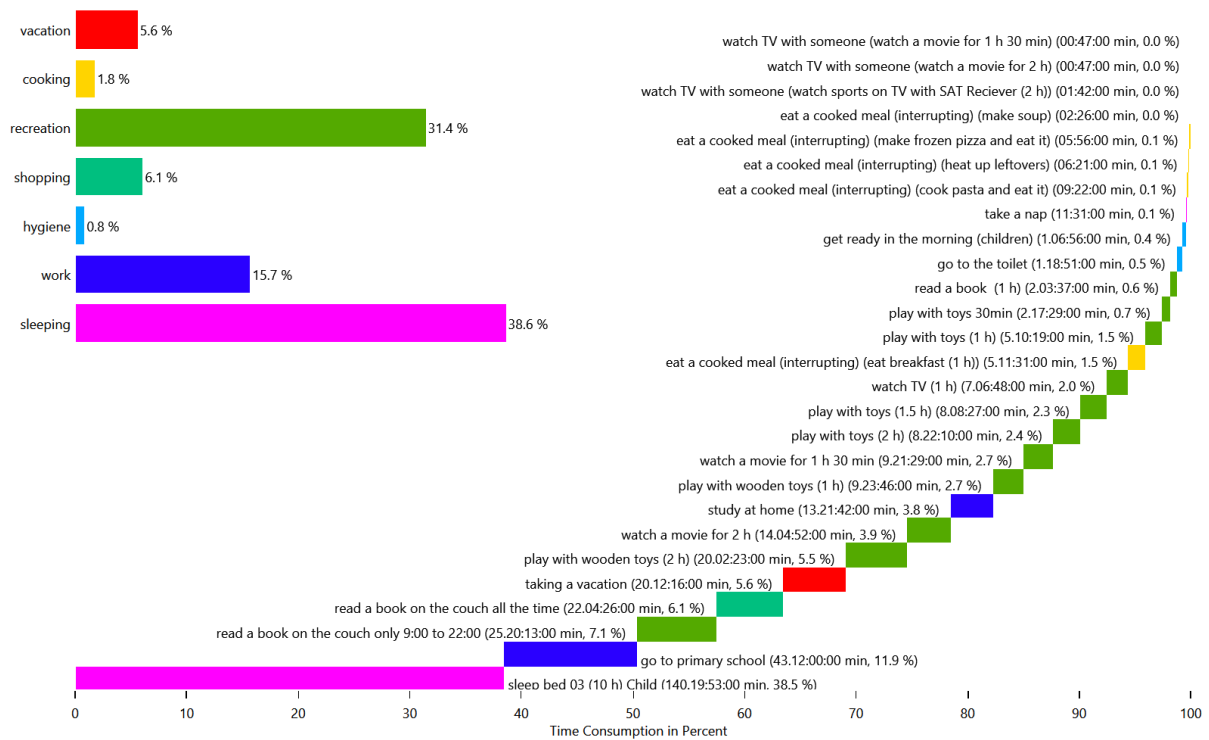


# Time Use per Person per Affordance Per Person

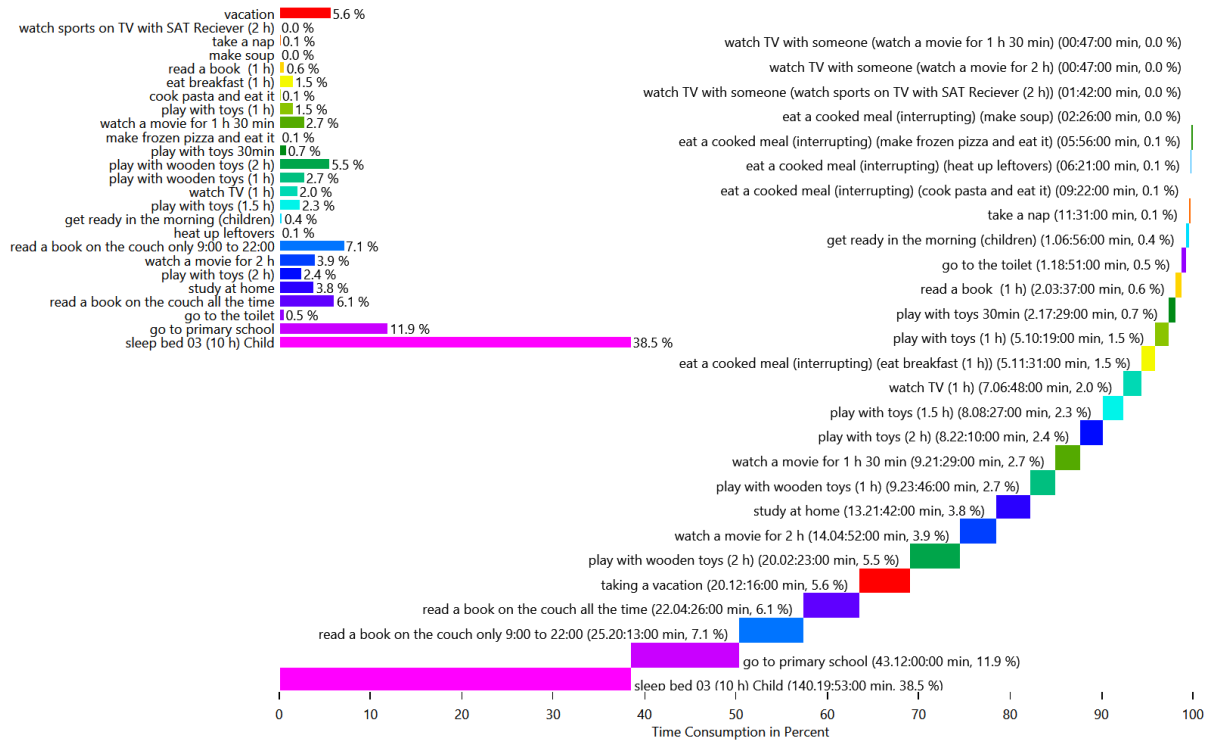
This is made from the files starting with: AffordanceTimeUse

These charts show how the people in the household use their time. This shows the individual affordances to help find problems in the household definition.

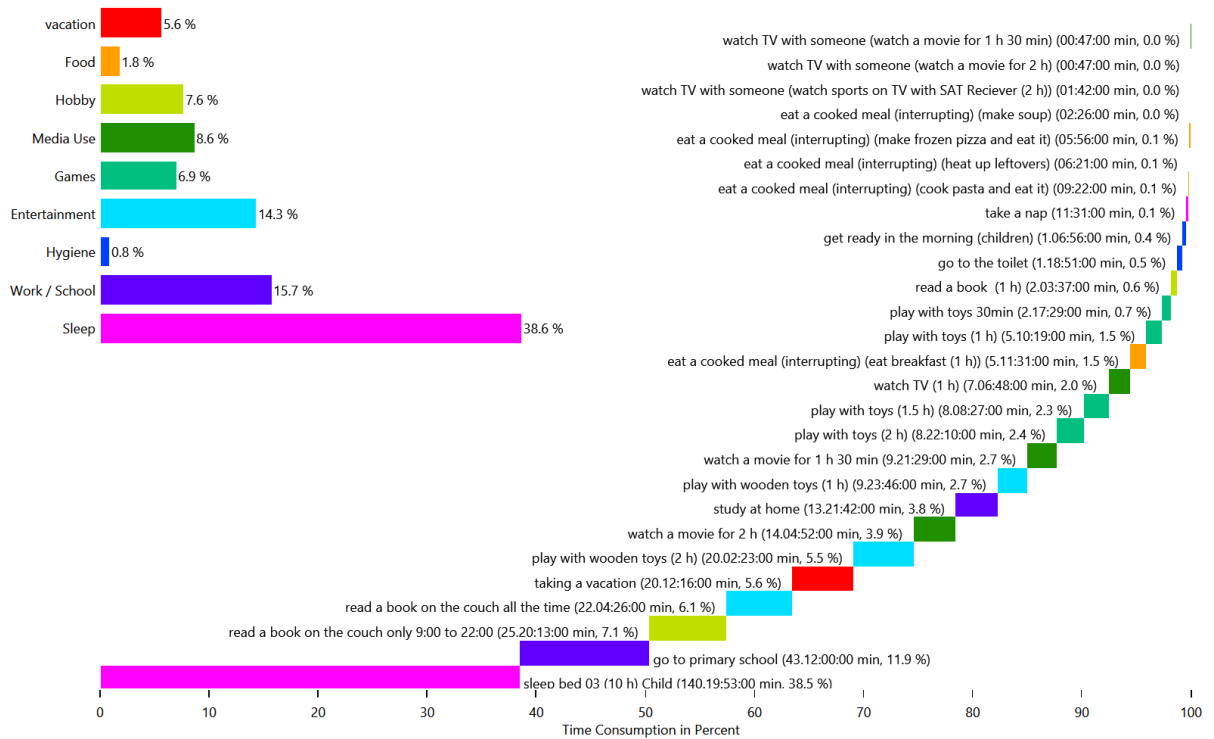
## HH0 - CHR22 Anja (7 Female)



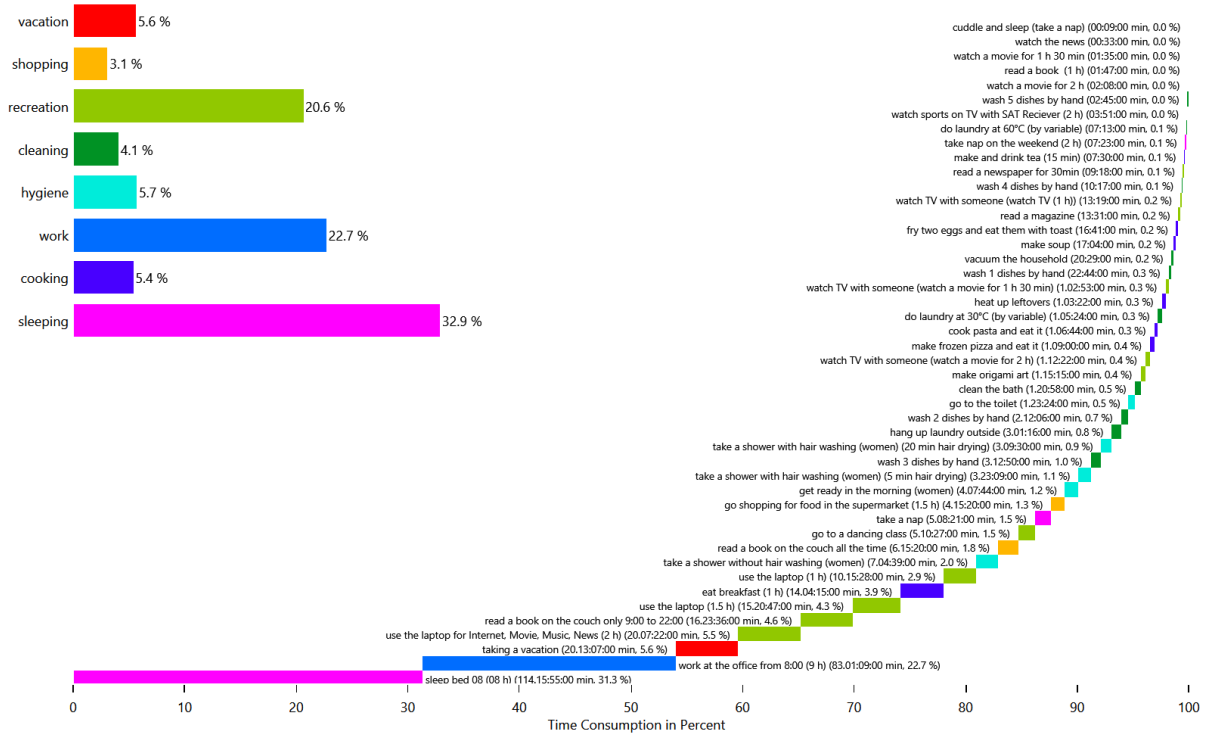
## HH0 - CHR22 Anja (7 Female)



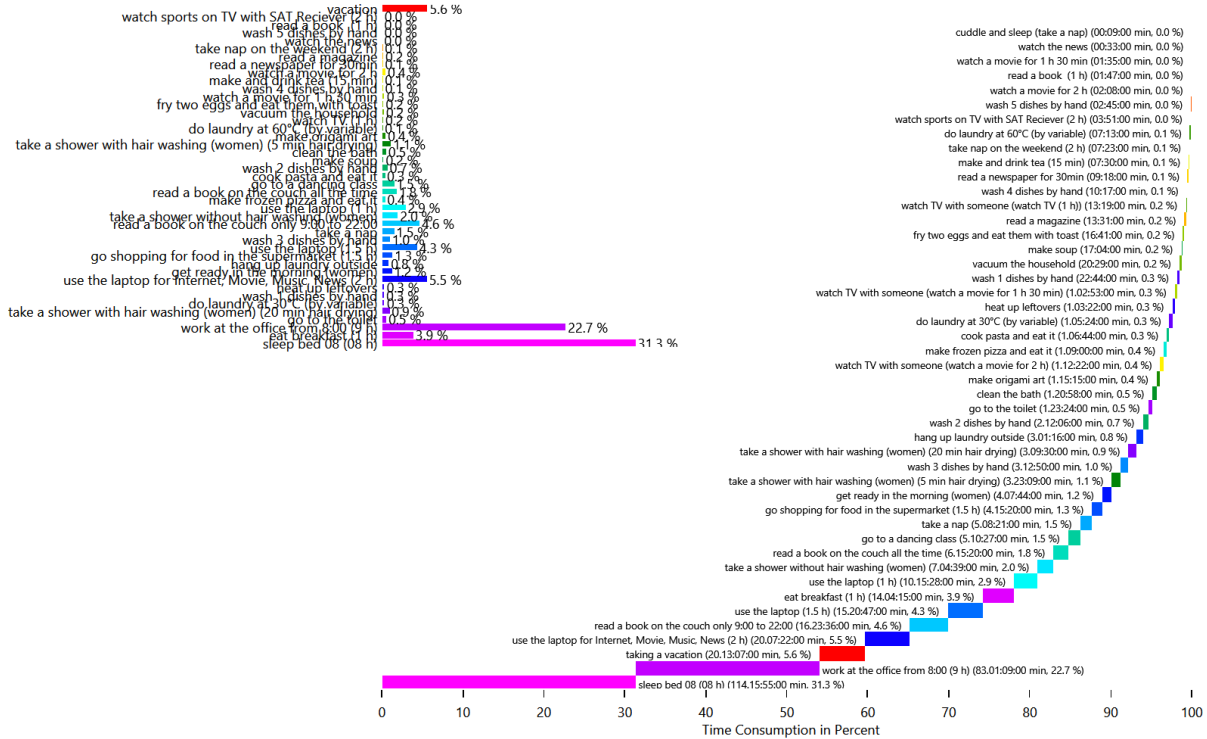
## HH0 - CHR22 Anja (7 Female)



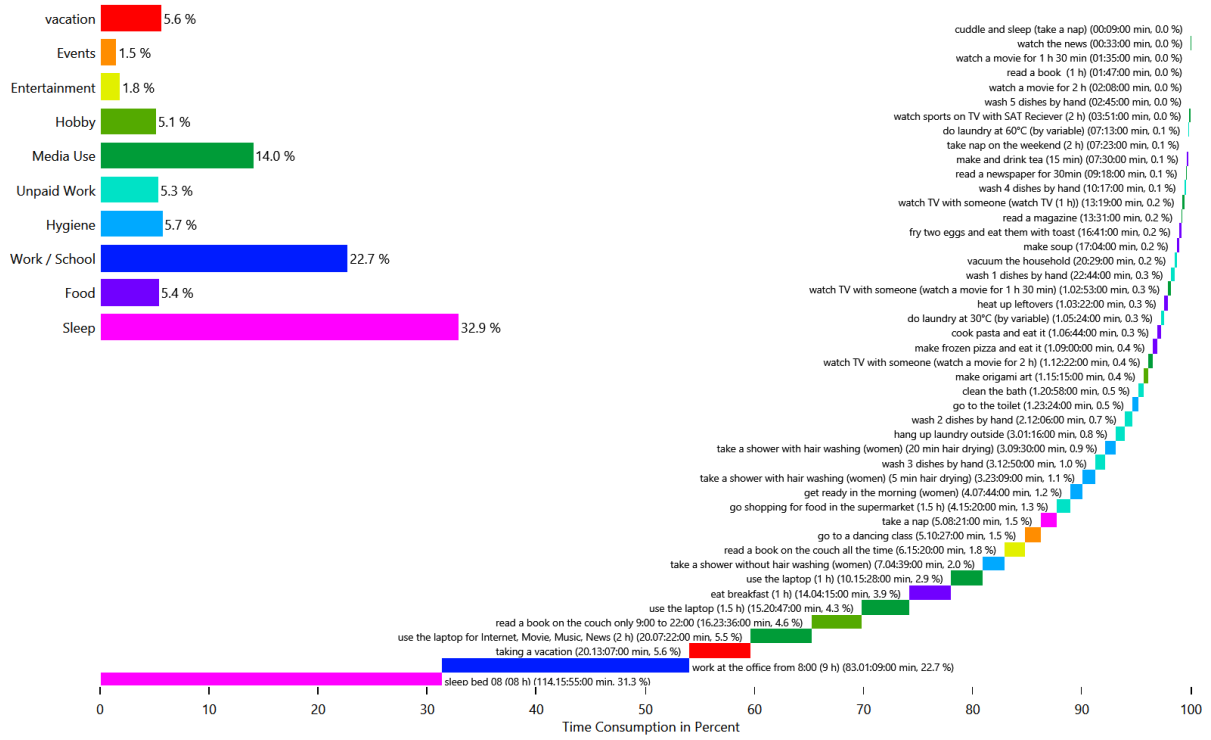
# HH0 - CHR22 Fiona (28 Female)



# HH0 - CHR22 Fiona (28 Female)



# HH0 - CHR22 Fiona (28 Female)

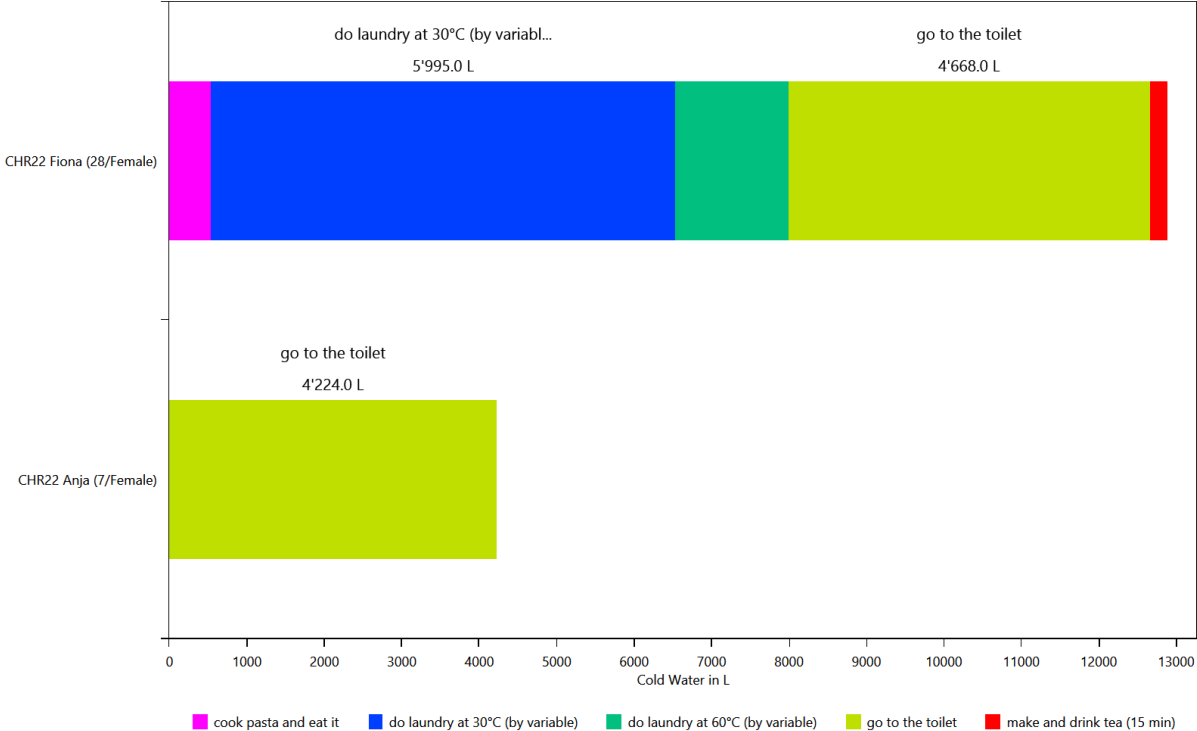


# Energy use per person per affordance

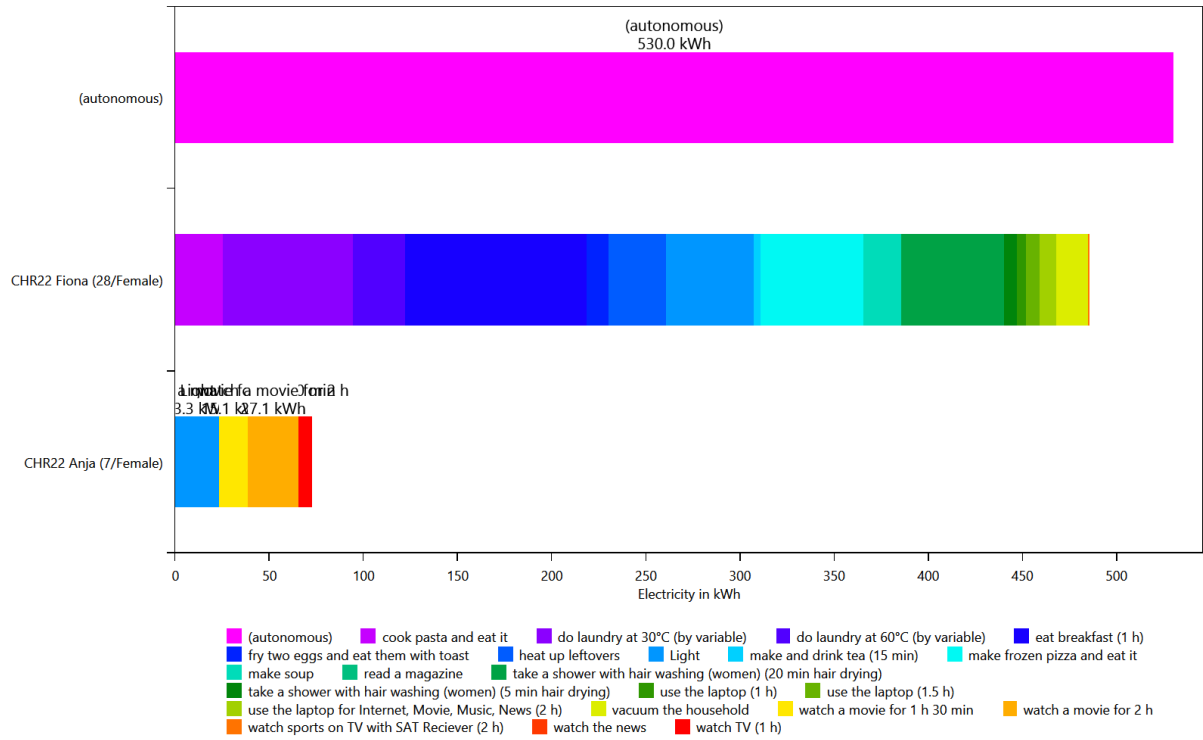
This is made from the files starting with: AffordanceEnergyUsePerPerson

This shows the distribution of the energy/ressource use to each affordance by load type and by person. This helps with figuring out if a person is using too much electricity.

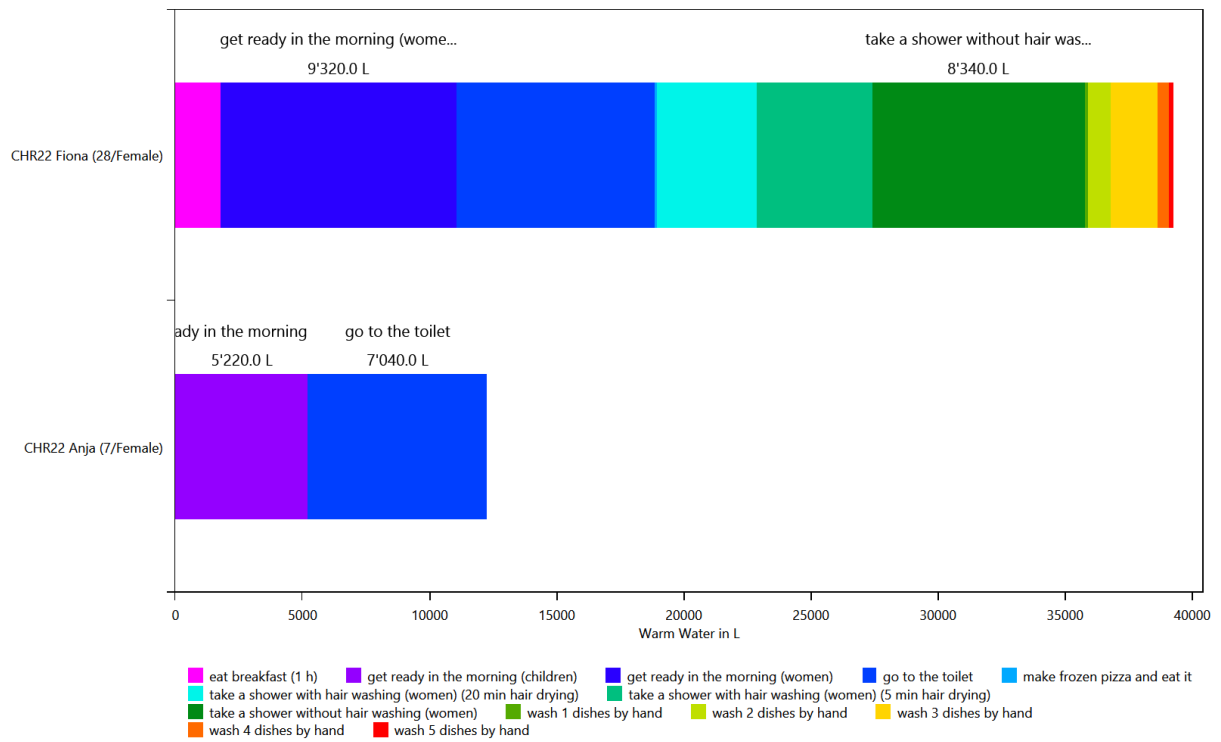
## HH0 - Cold Water



## HH0 - Electricity



## HH0 - Warm Water

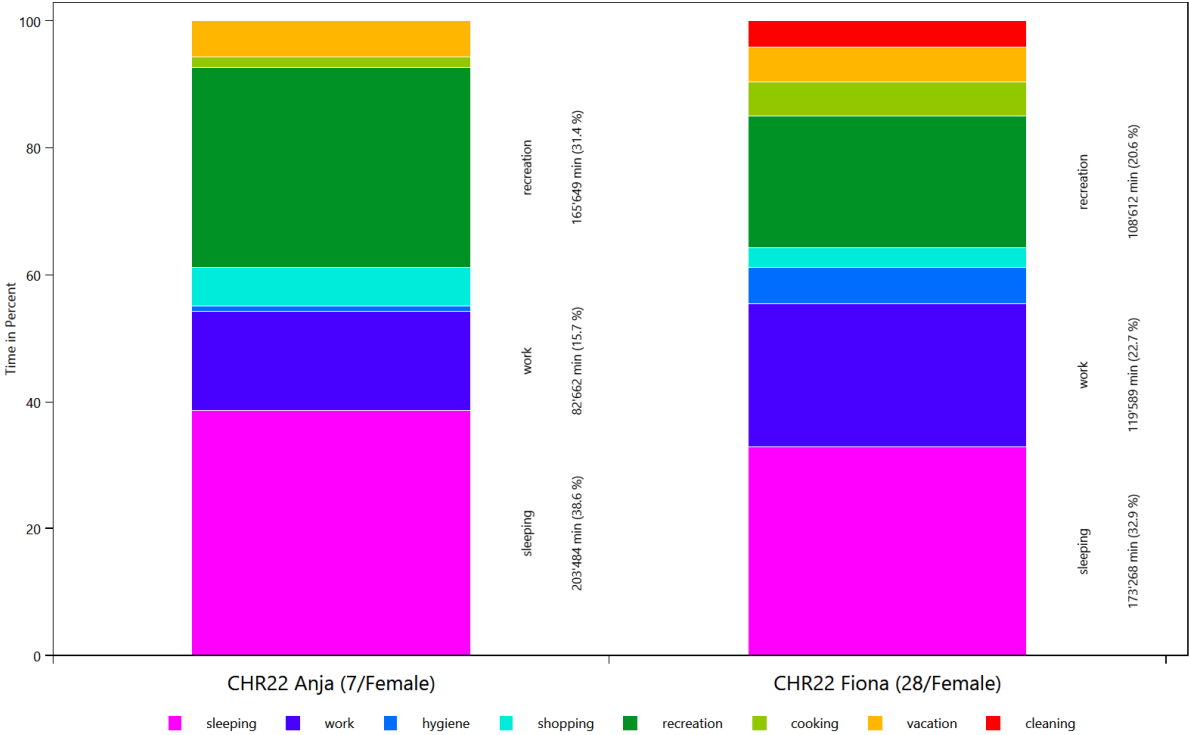


# Time Use per Person Per Affordance according to different category definitions

This is made from the files starting with: AffordanceTaggingSet

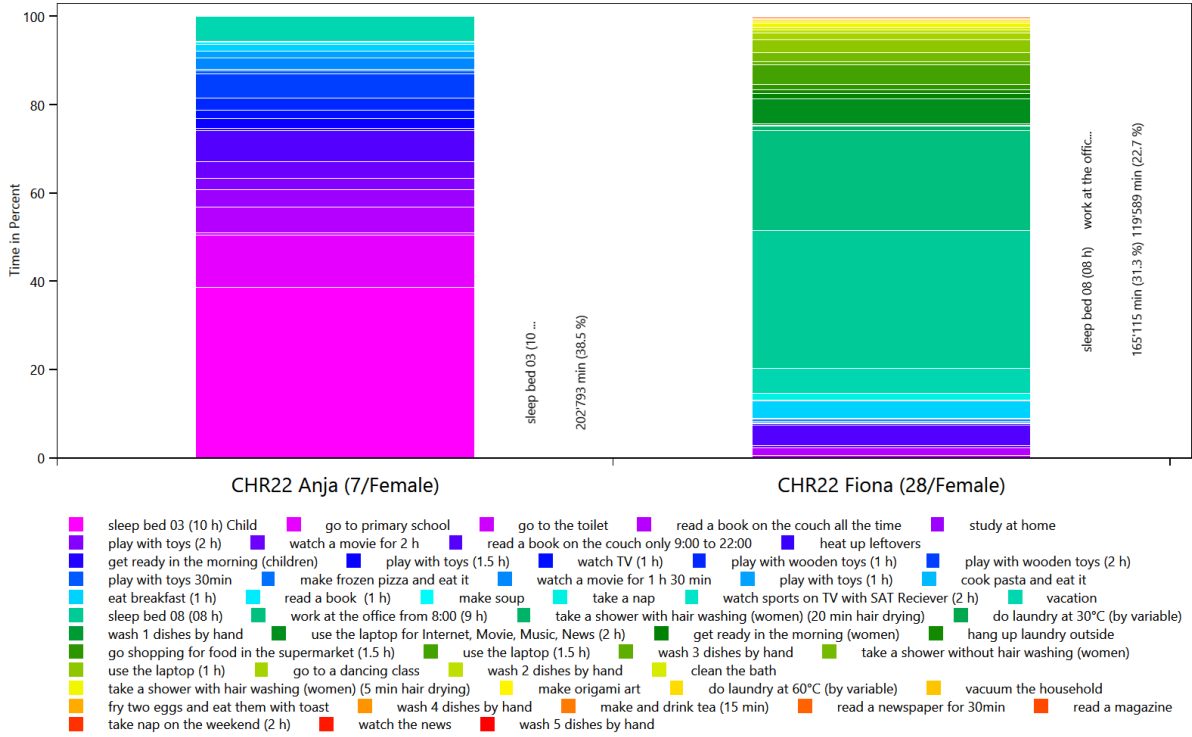
These charts show how the people in the household use their time. To help with analysis, the activities can be grouped by various criteria. This is done with the affordance tagging sets in the LPG.

## Basic Tagging - HH0

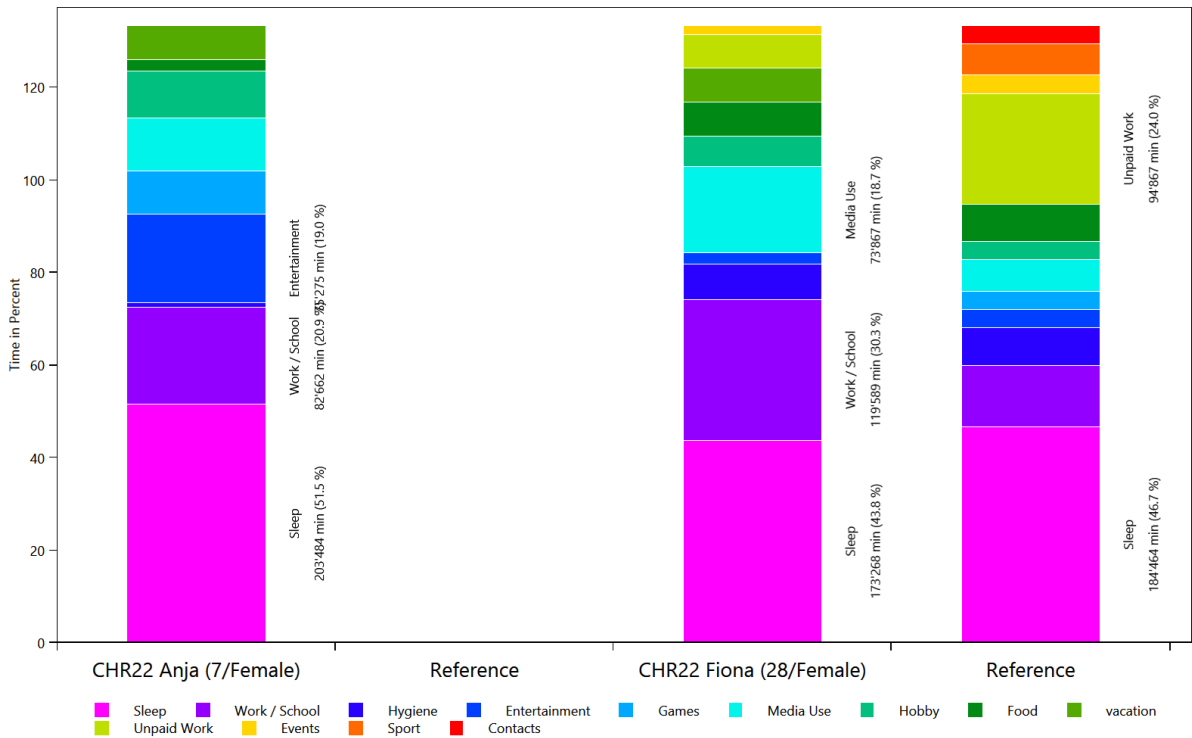




# Tagging Set For Planning - HH0



# Wo bleibt die Zeit - HH0

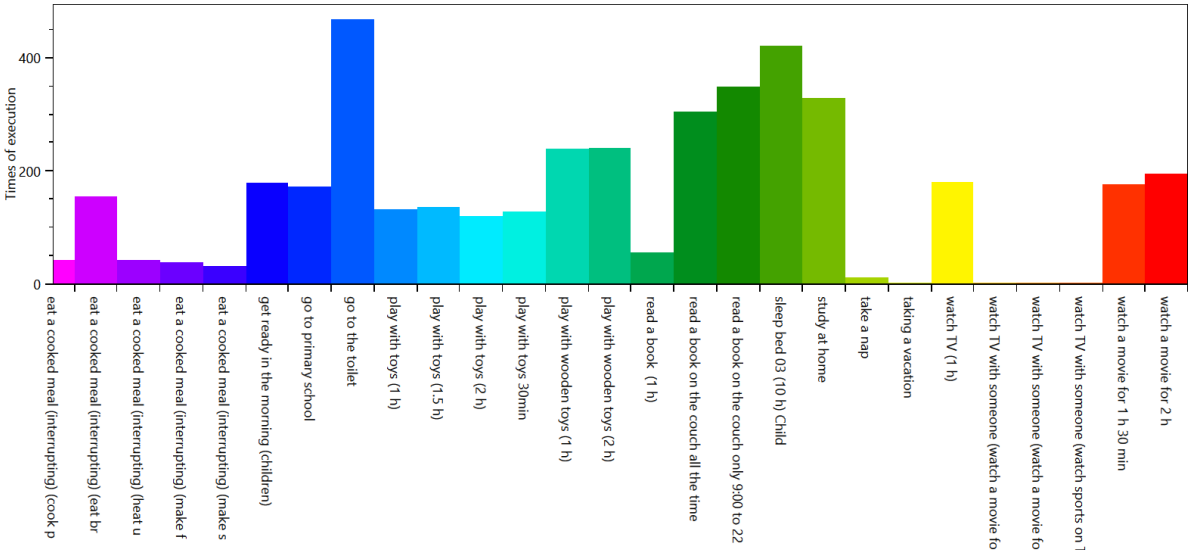


# Overview of the actions of each member of the household

This is made from the files starting with: ExecutedActionsOverviewCount

These charts show how often each affordance was executed.

HH0 - CHR22 Anja (7 Female)



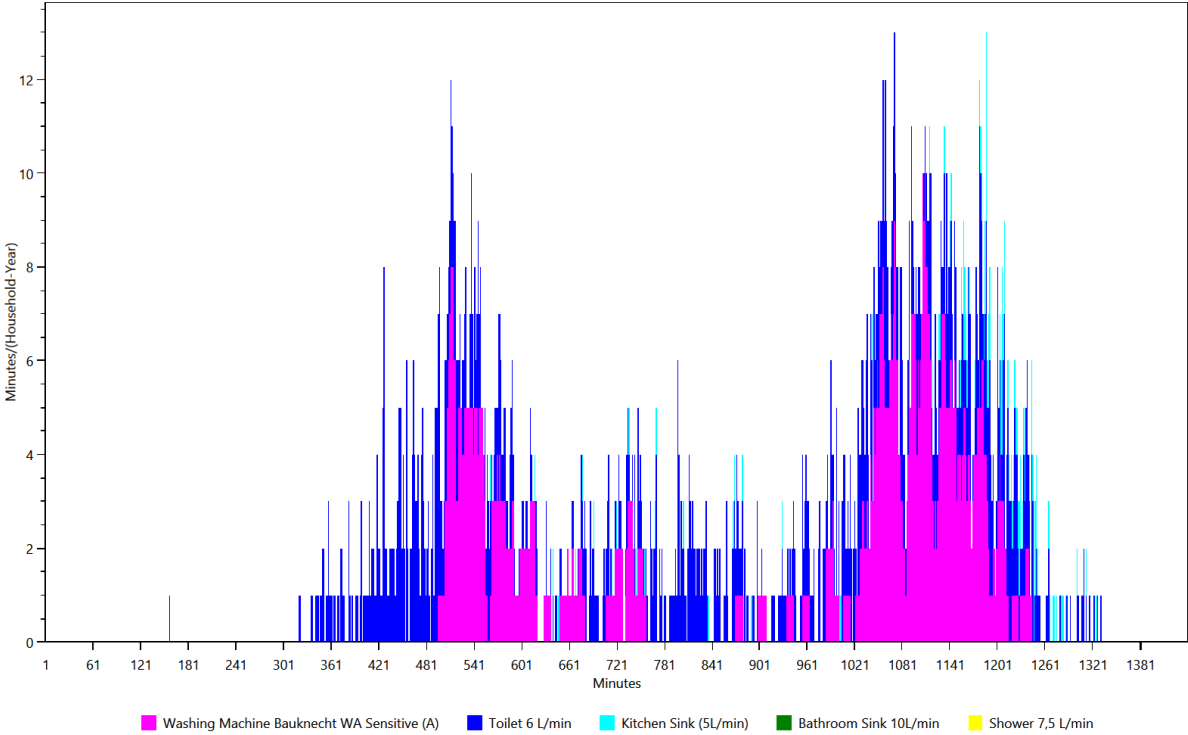


# Overview of the time of the use per load type per device

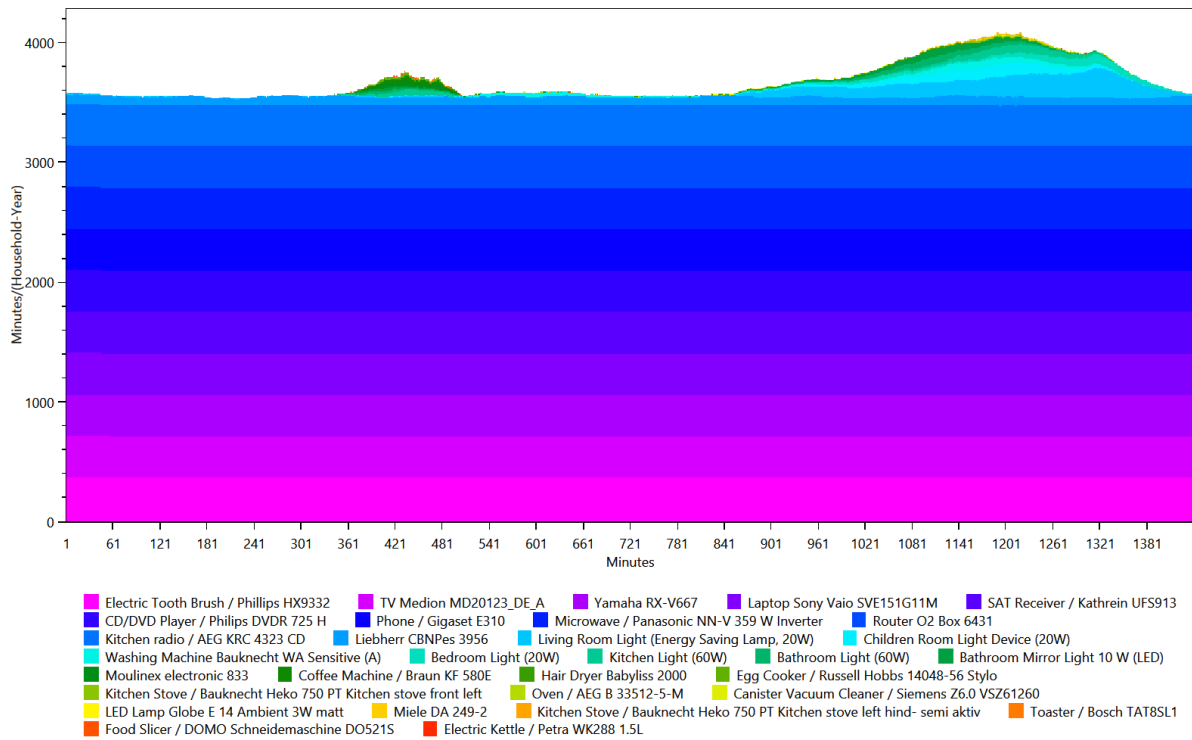
This is made from the files starting with: TimeOfUseEnergyProfiles

The time of use energy profiles shows when each device was used.

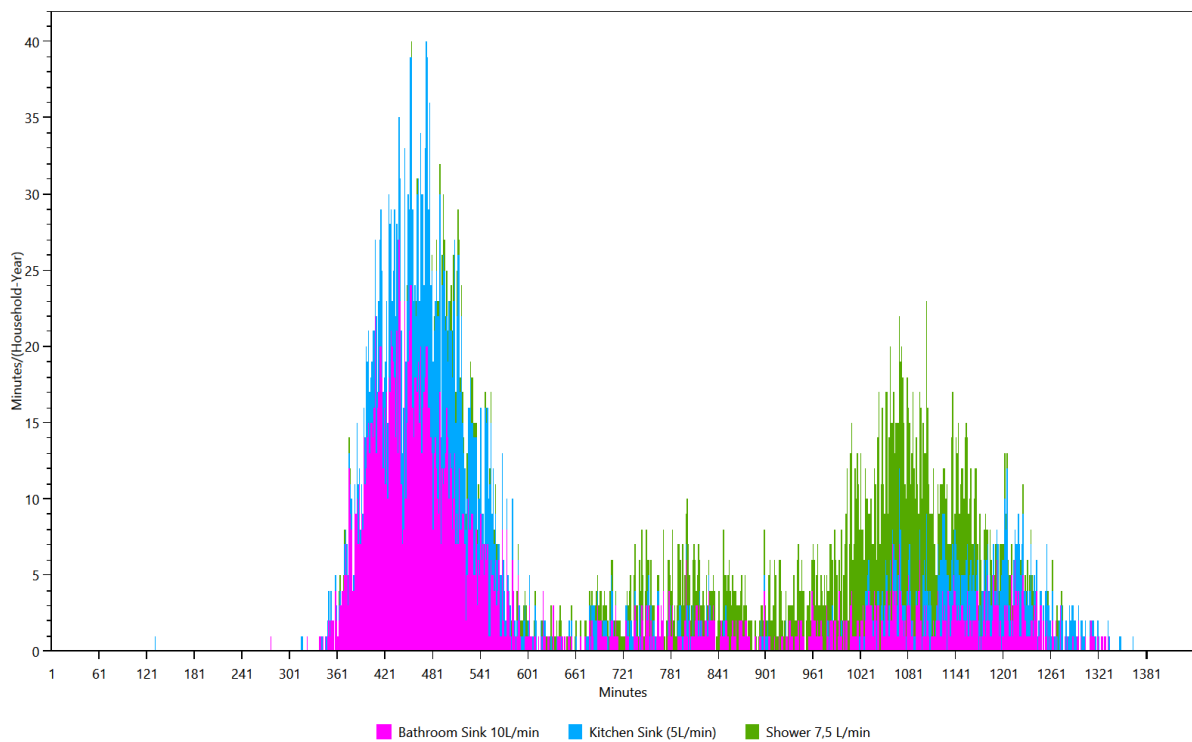
## Cold Water



## Electricity



## Warm Water

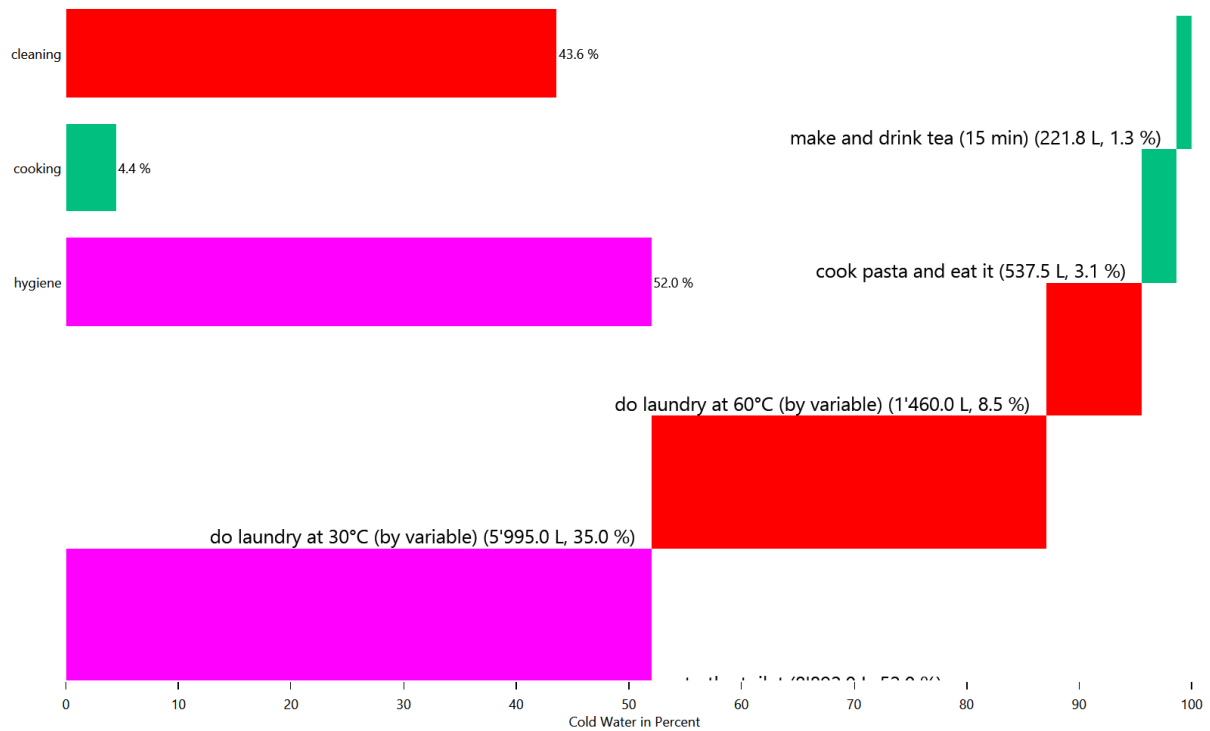


# Energy/Resource use distribution per load type per affordance

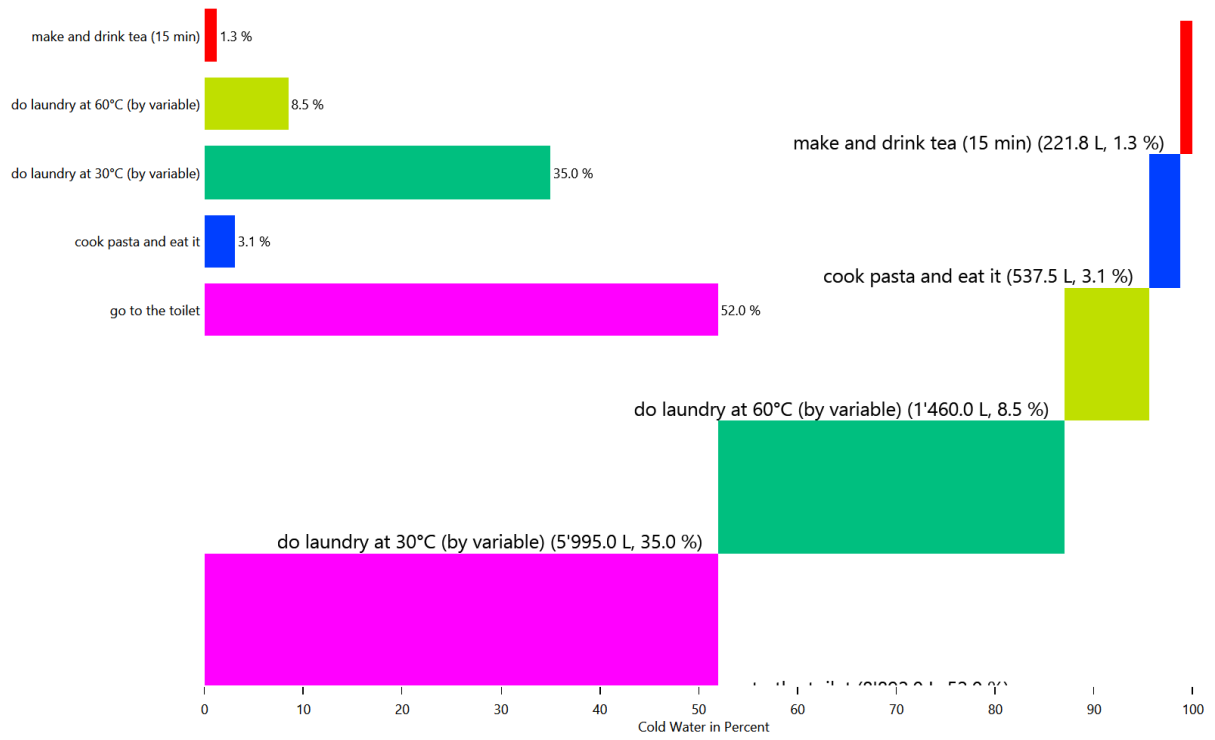
This is made from the files starting with: **AffordanceEnergyUse**

This shows the distribution of the energy/ressource use to each affordance by load type.

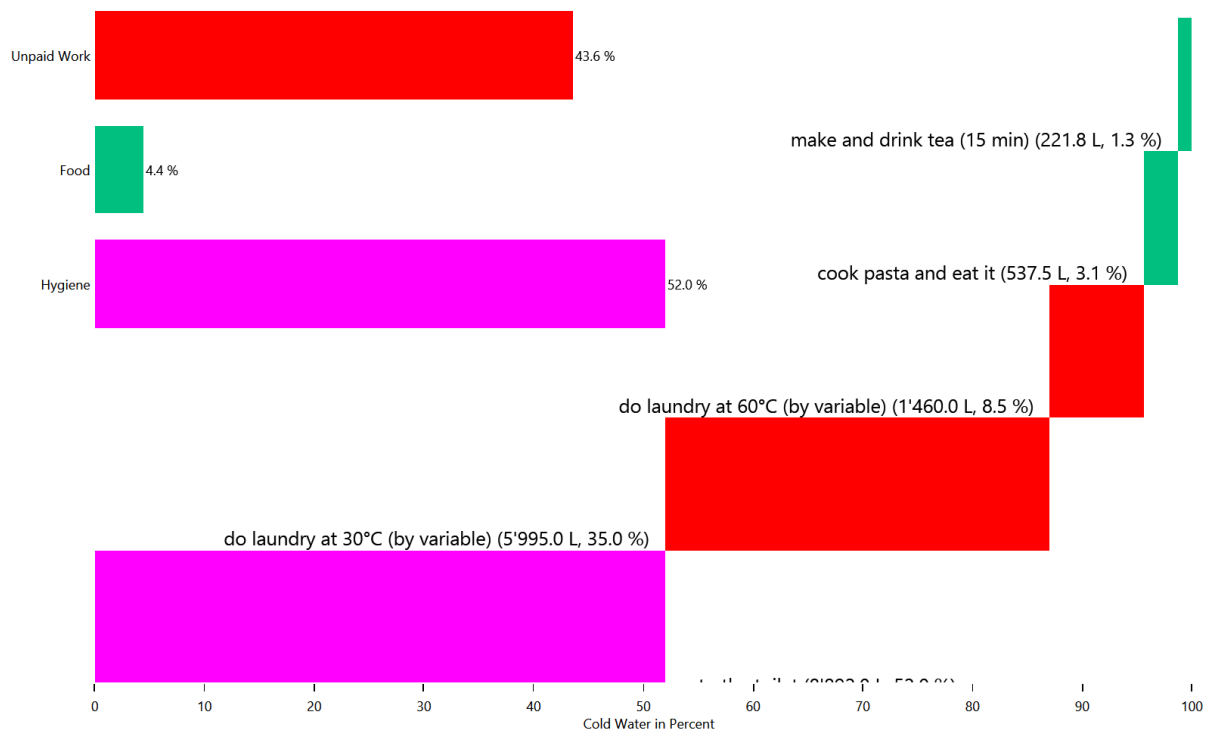
## HH0 - Cold Water



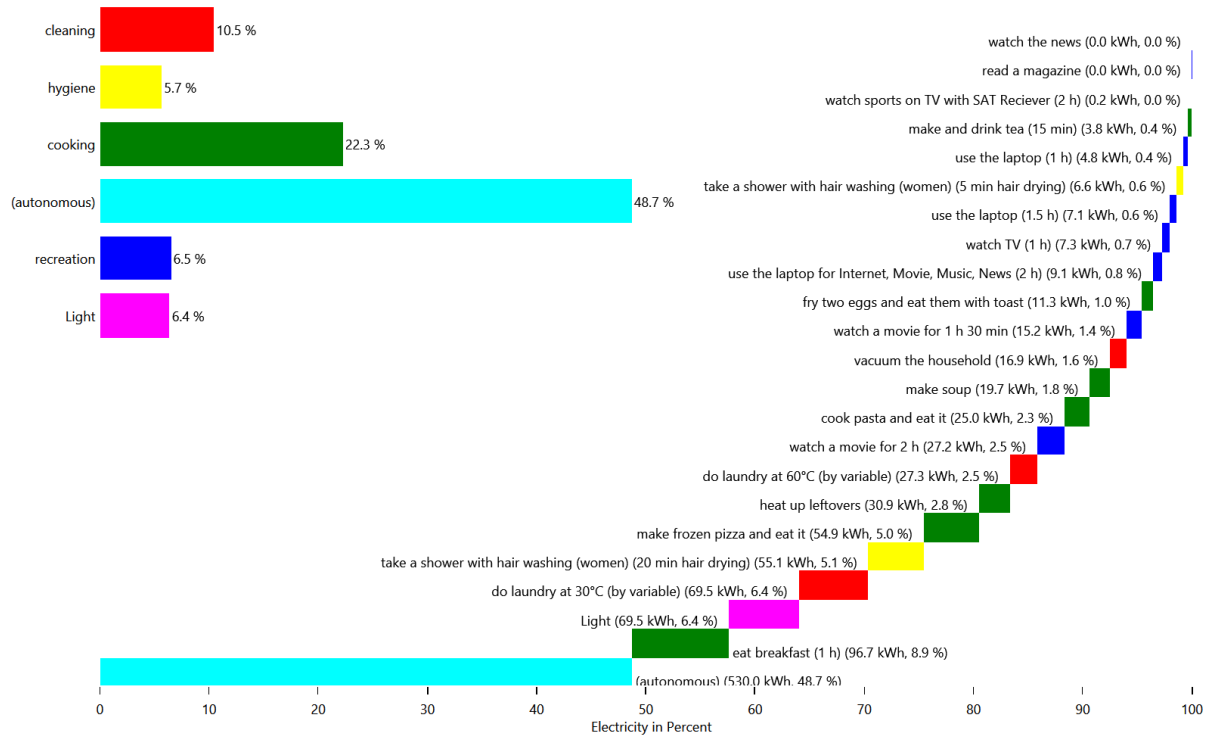
## HH0 - Cold Water



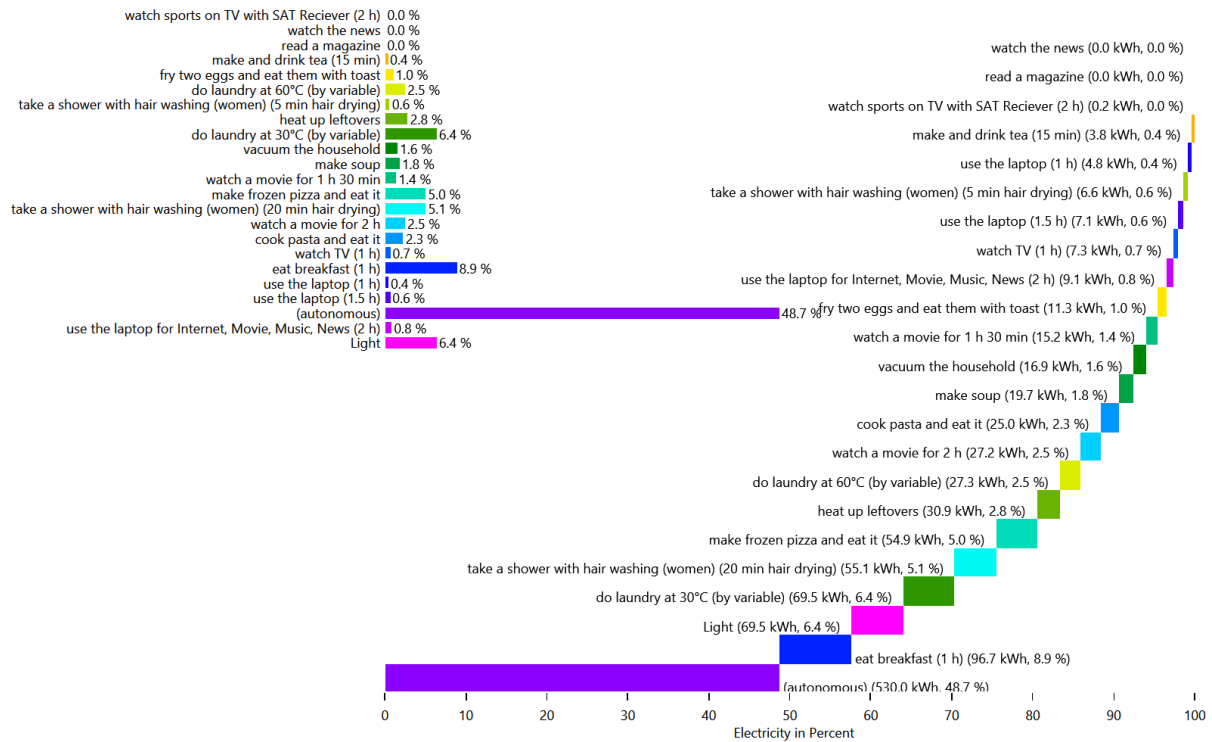
## HH0 - Cold Water



## HH0 - Electricity

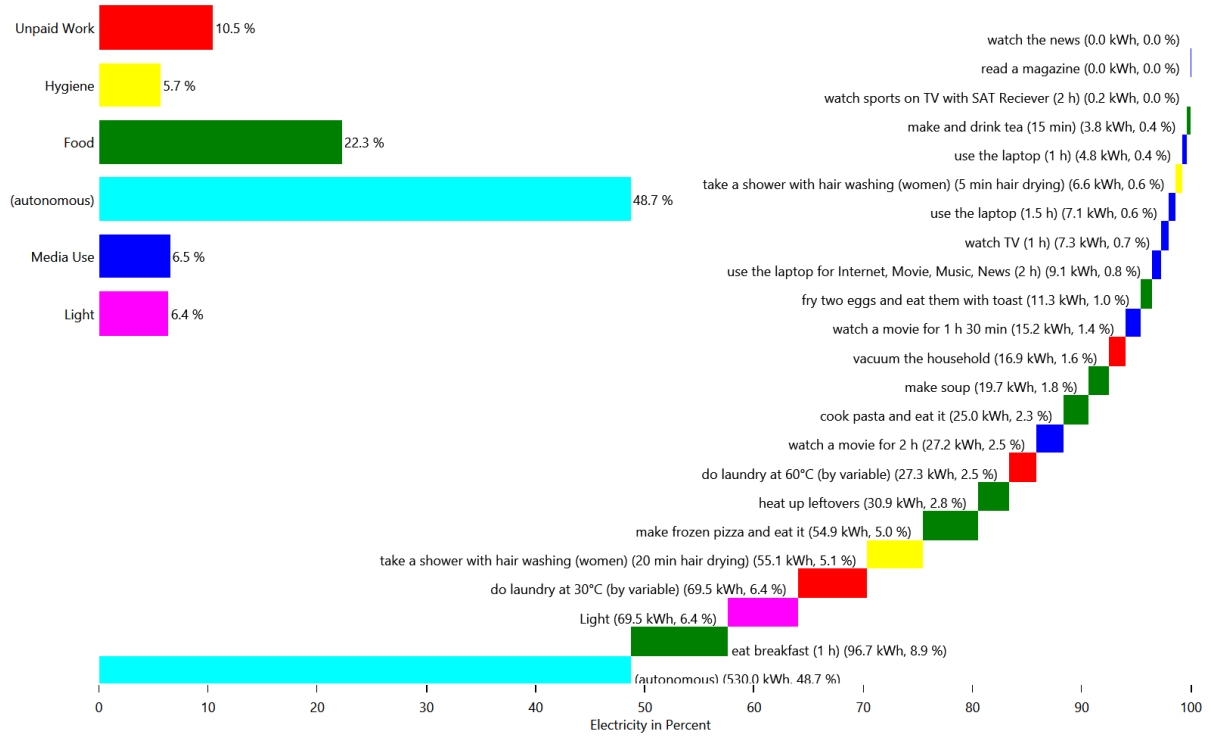


## HH0 - Electricity

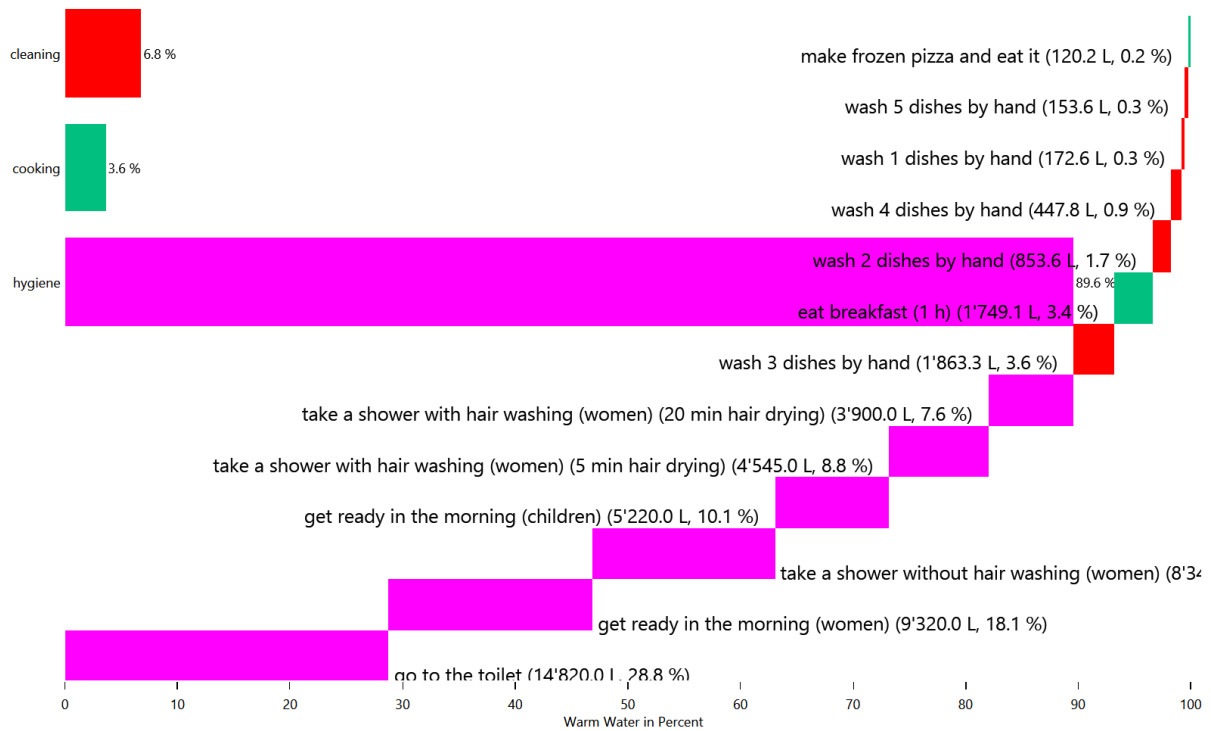




## HH0 - Electricity



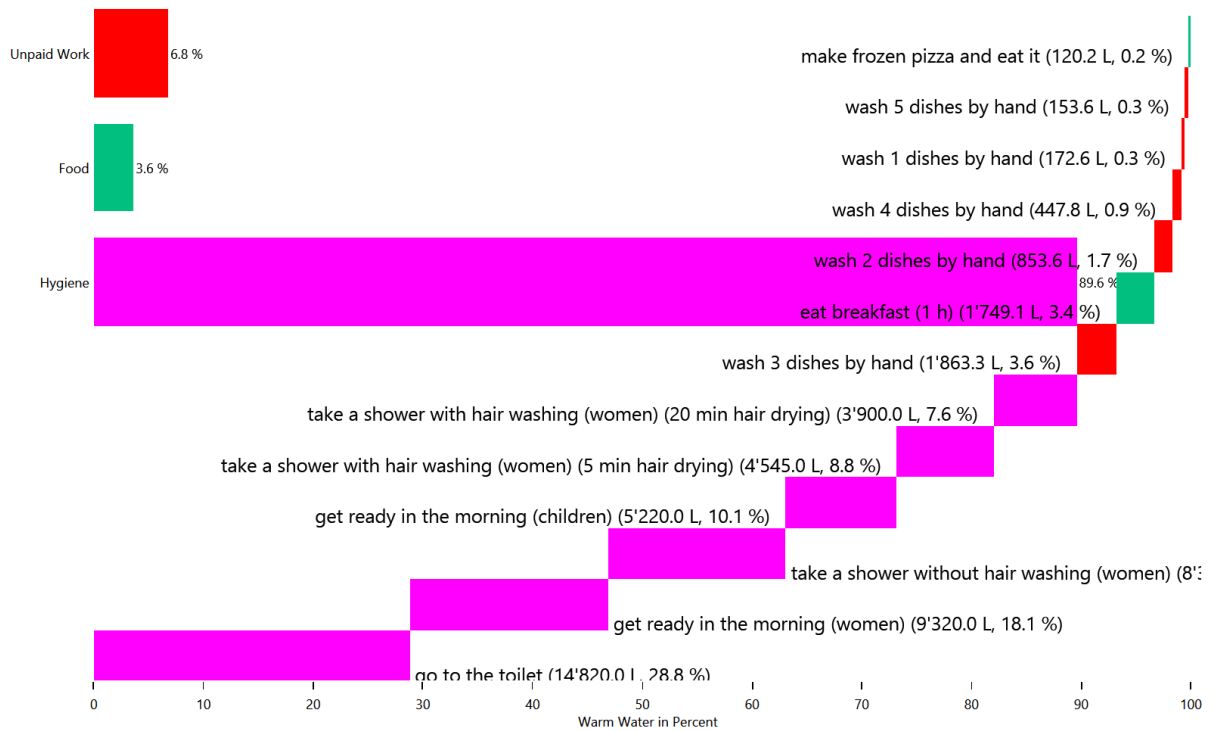
## HH0 - Warm Water



## HH0 - Warm Water



## HH0 - Warm Water

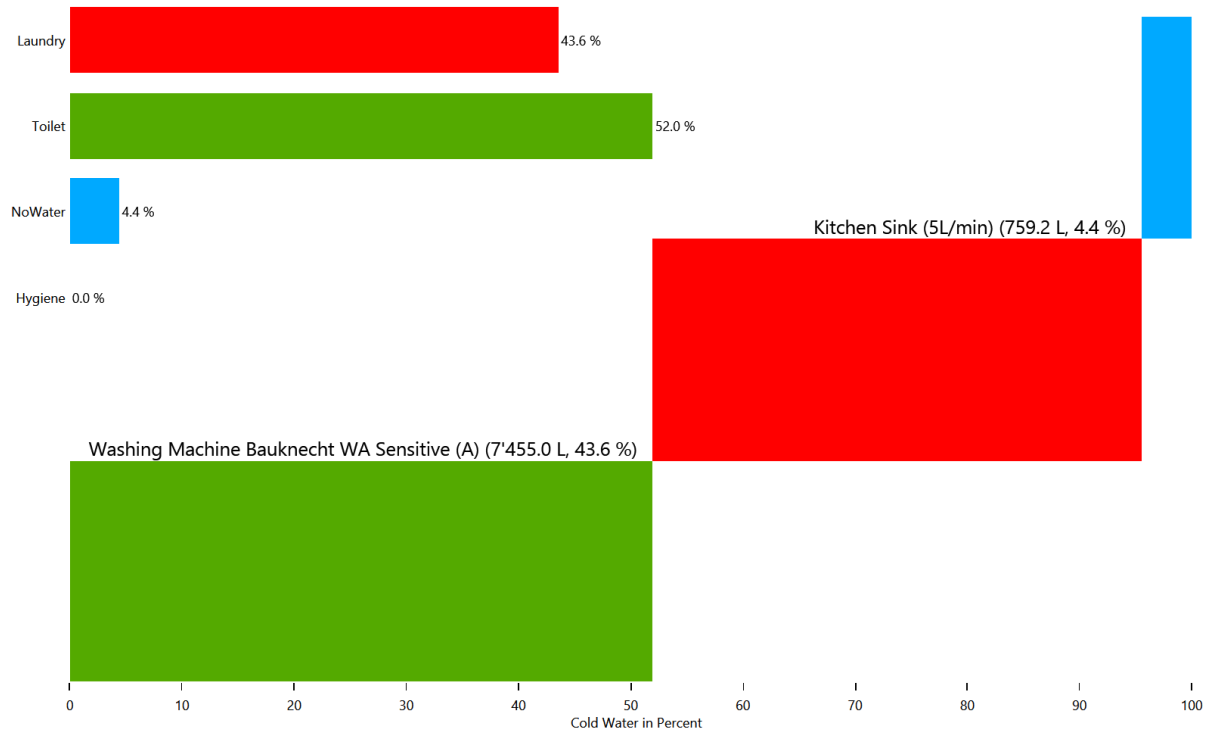


# Energy use for each load type for each device

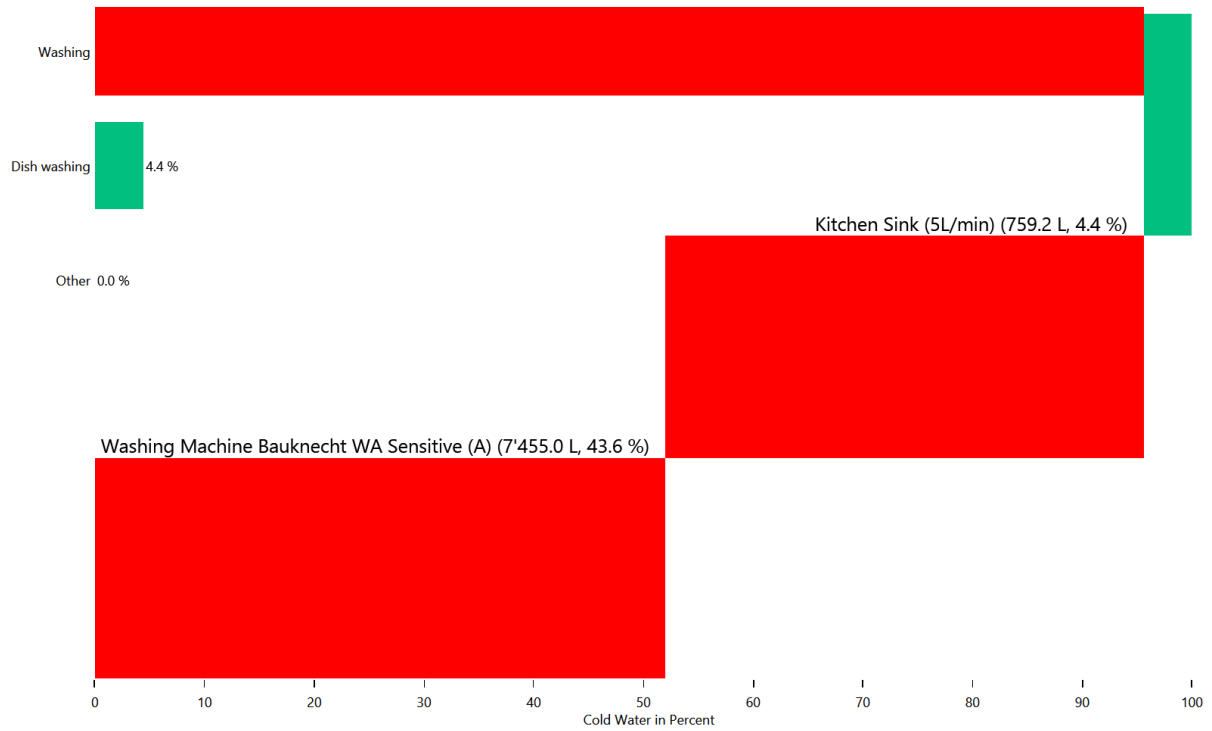
This is made from the files starting with: DeviceSums

These pie charts show the energy use for each individual device in each load type.

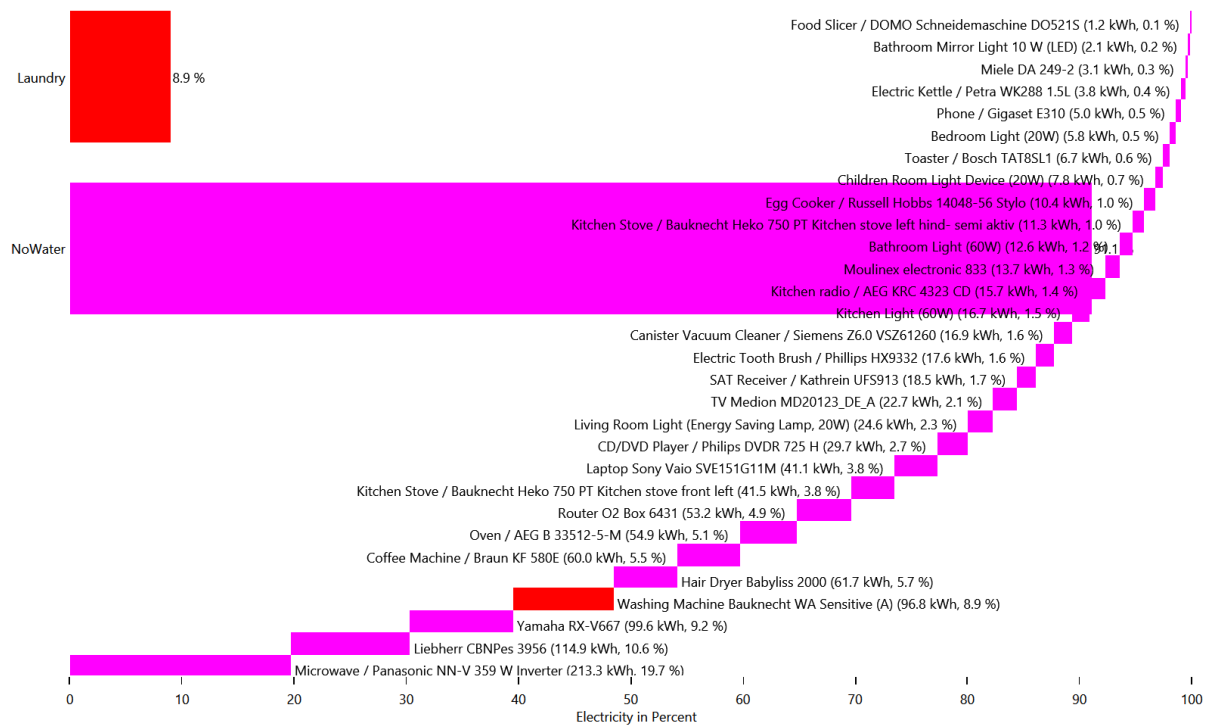
## Cold Water



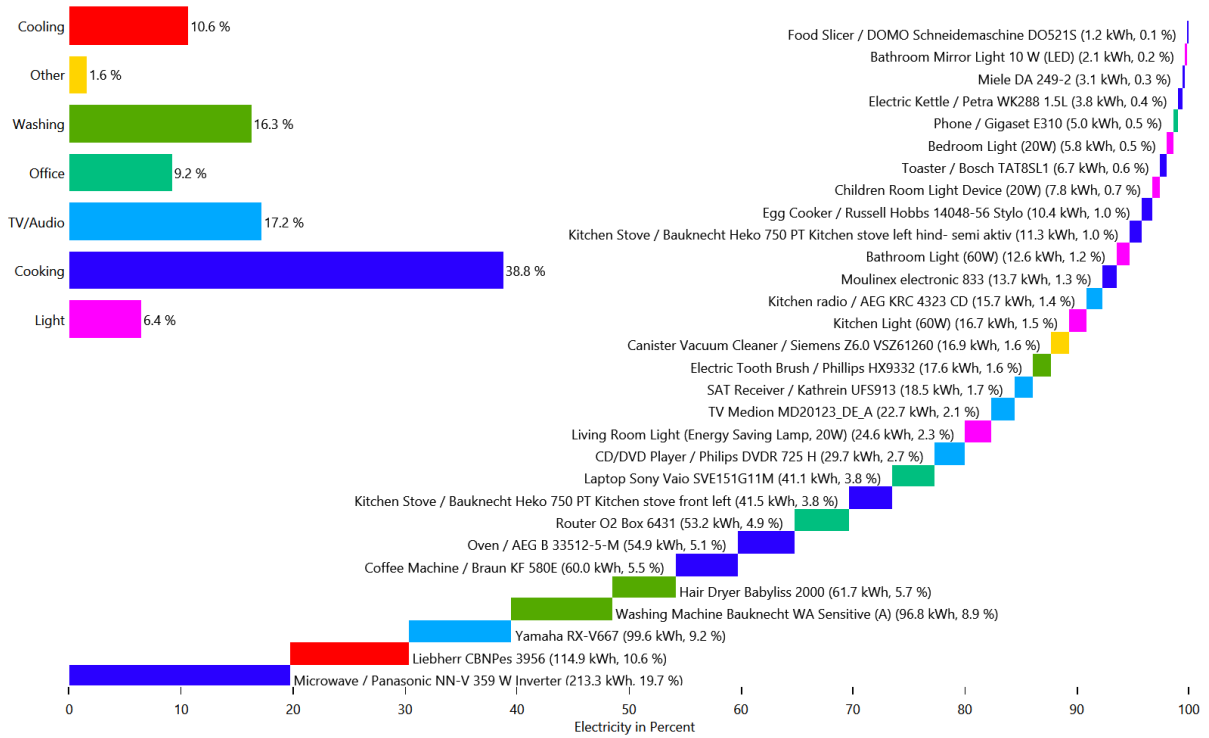
## Cold Water



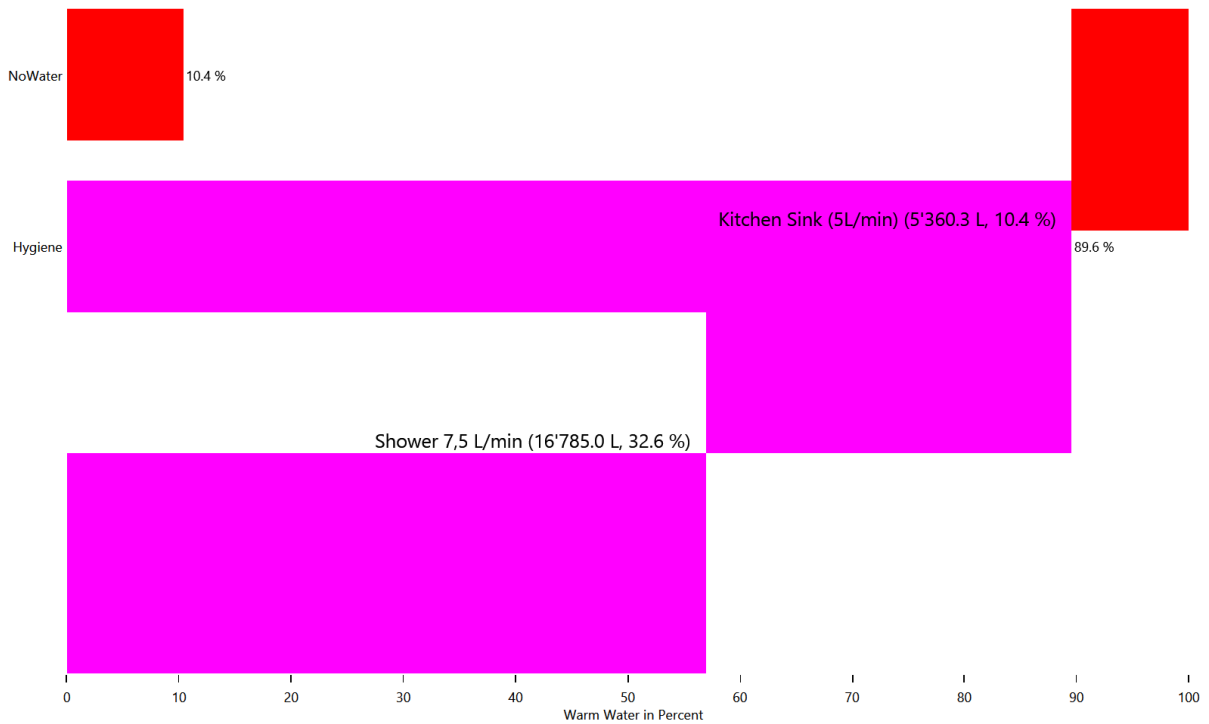
## Electricity



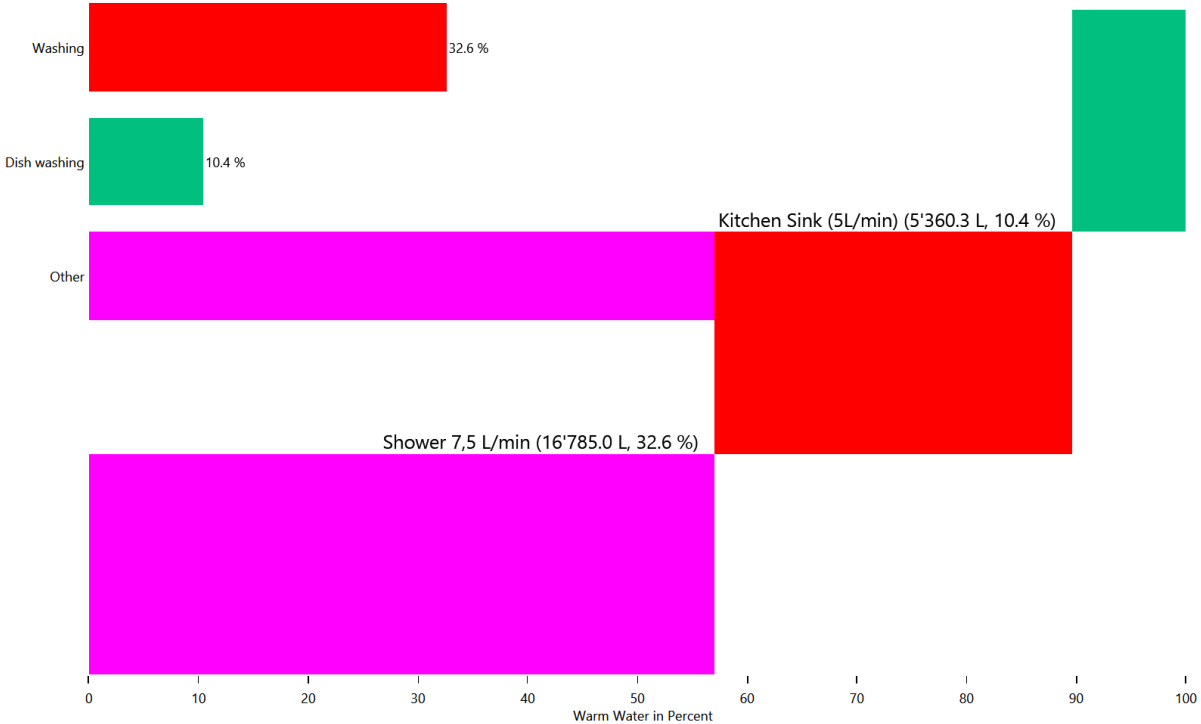
## Electricity



## Warm Water



# Warm Water

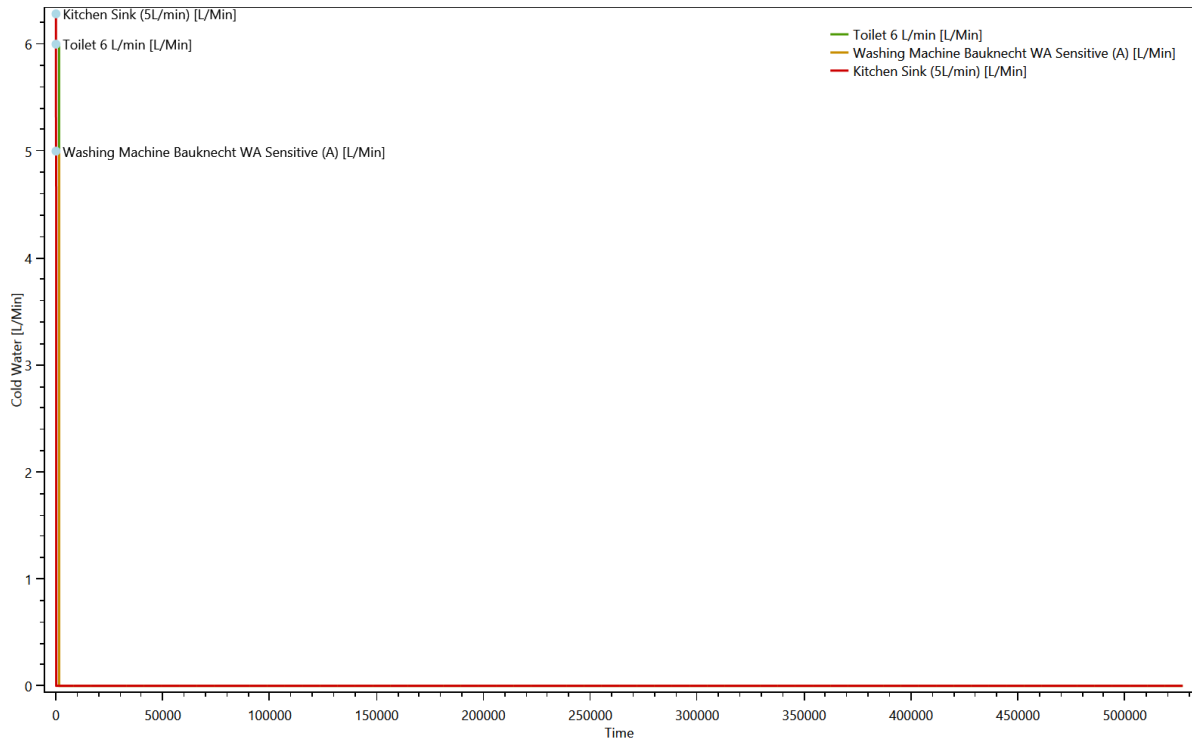


# Duration curve for each device for each load type

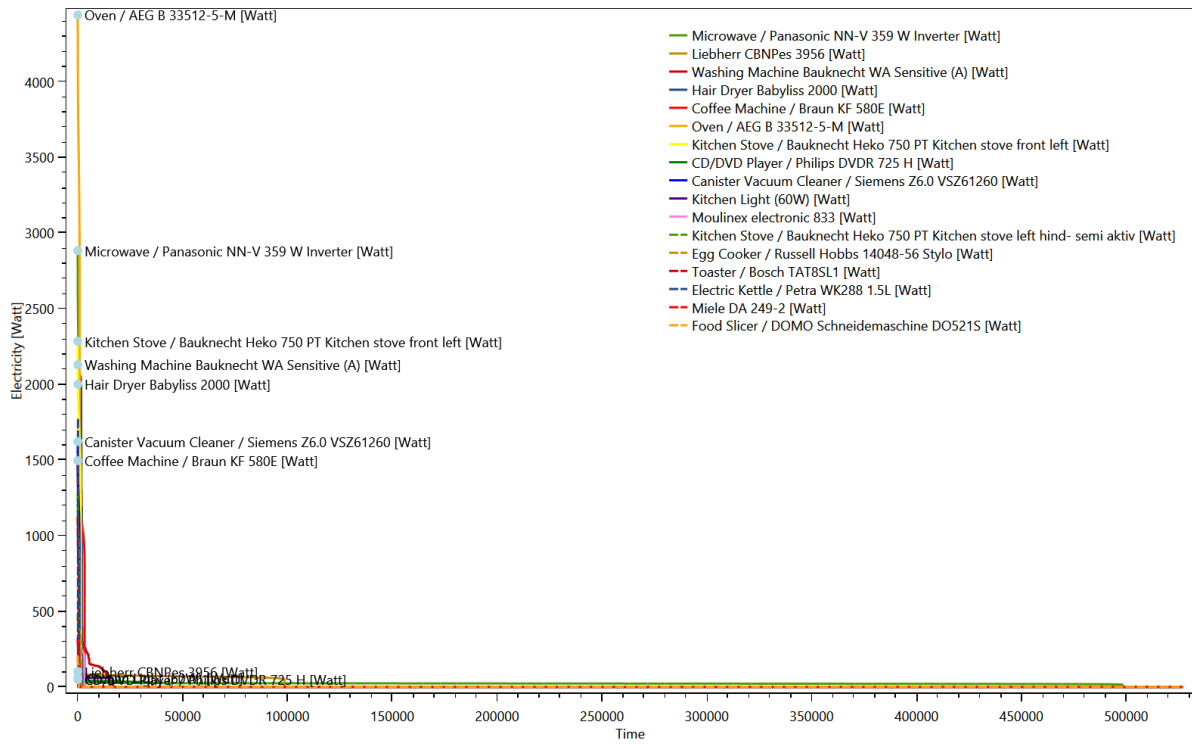
This is made from the files starting with: DeviceDurationCurves

The device duration curve show the duration curve of each device to give an overview of the power consumption.

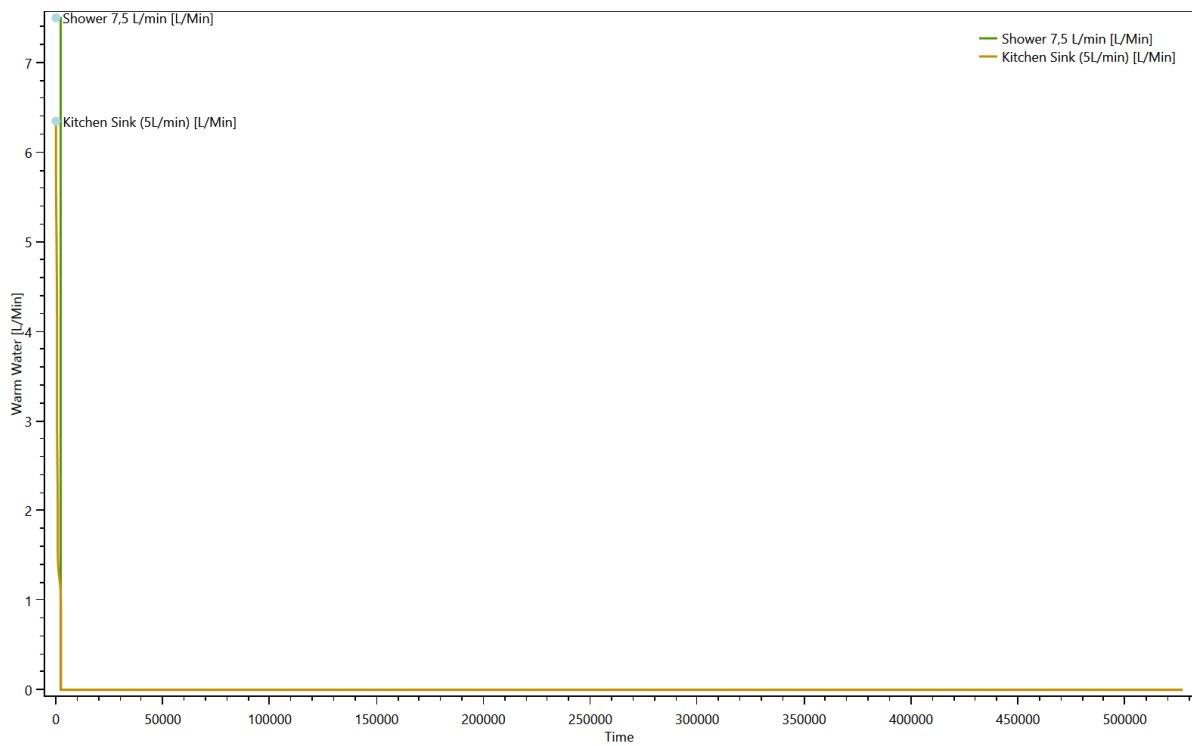
## Cold Water



## Electricity



## Warm Water



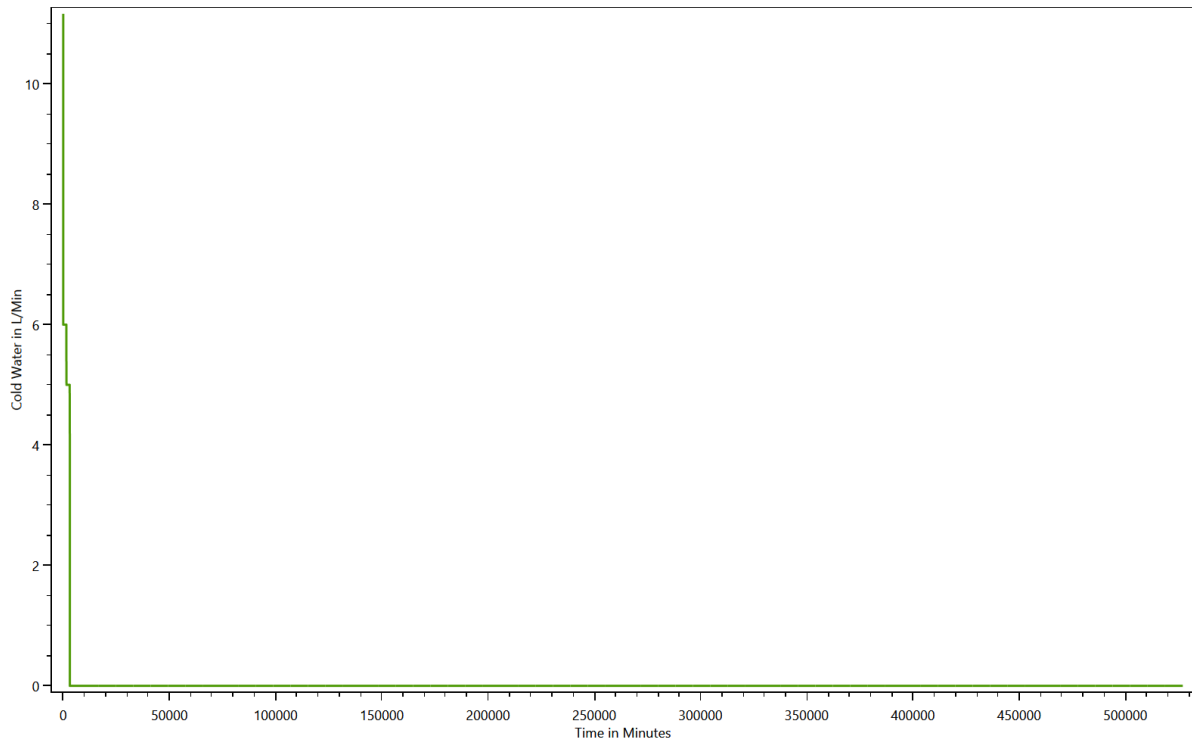


# Duration curve for each load type

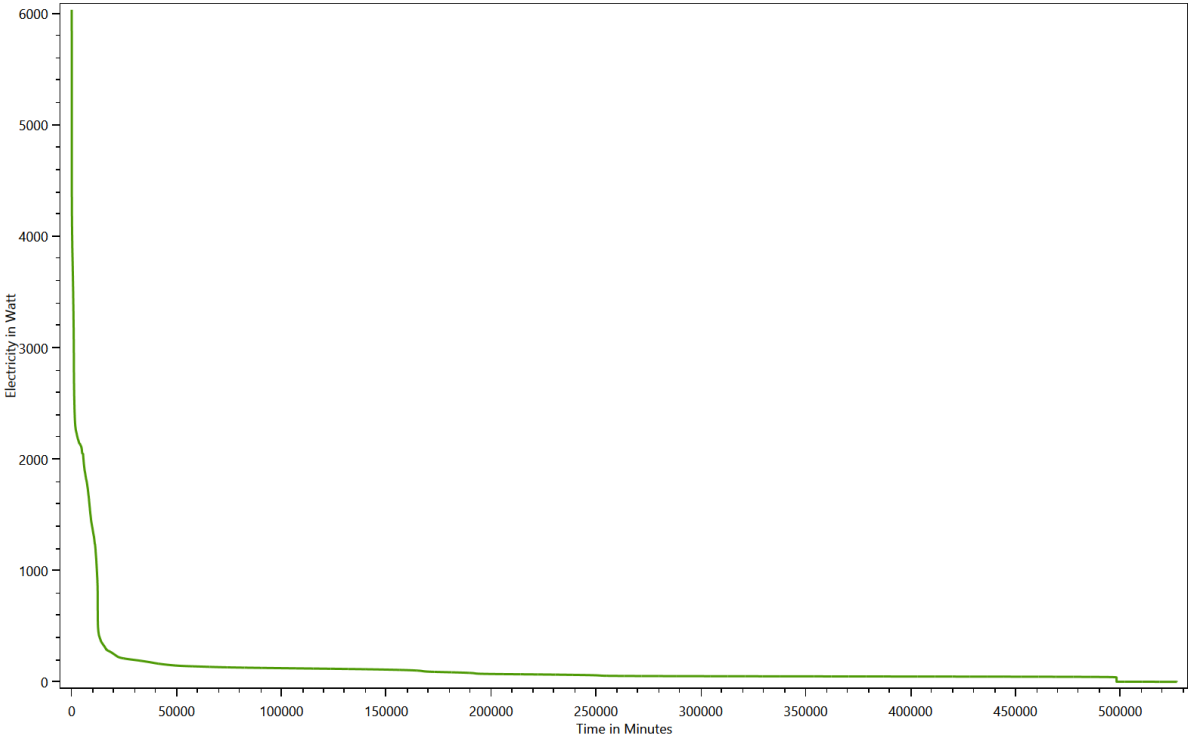
This is made from the files starting with: DurationCurve

The duration curve show the duration curve for the entire household to give an overview of the power consumption.

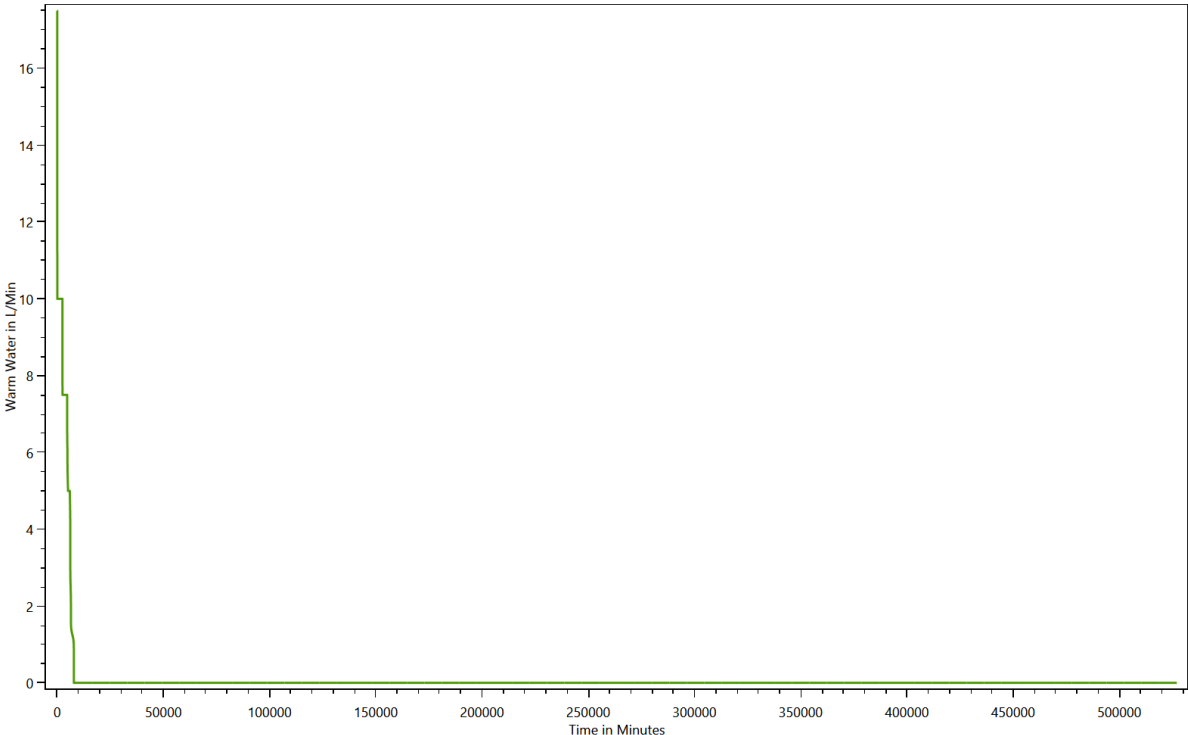
## Cold Water



# Electricity



# Warm Water

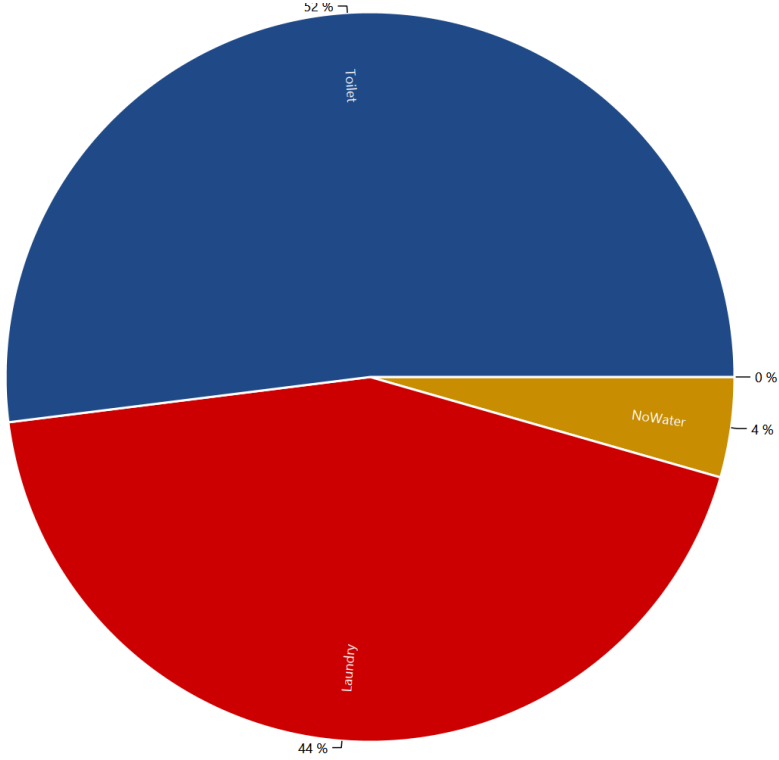


# Grouped energy use for each load type for each device

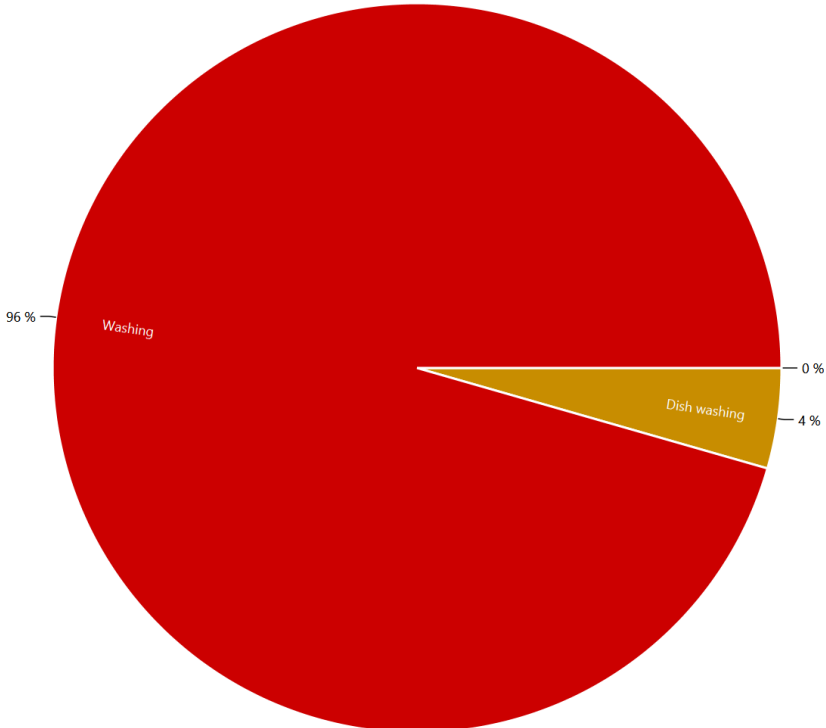
This is made from the files starting with: DeviceTaggingSet

The devices in the LPG can be grouped with various criteria by the device tagging sets. These charts show the results.

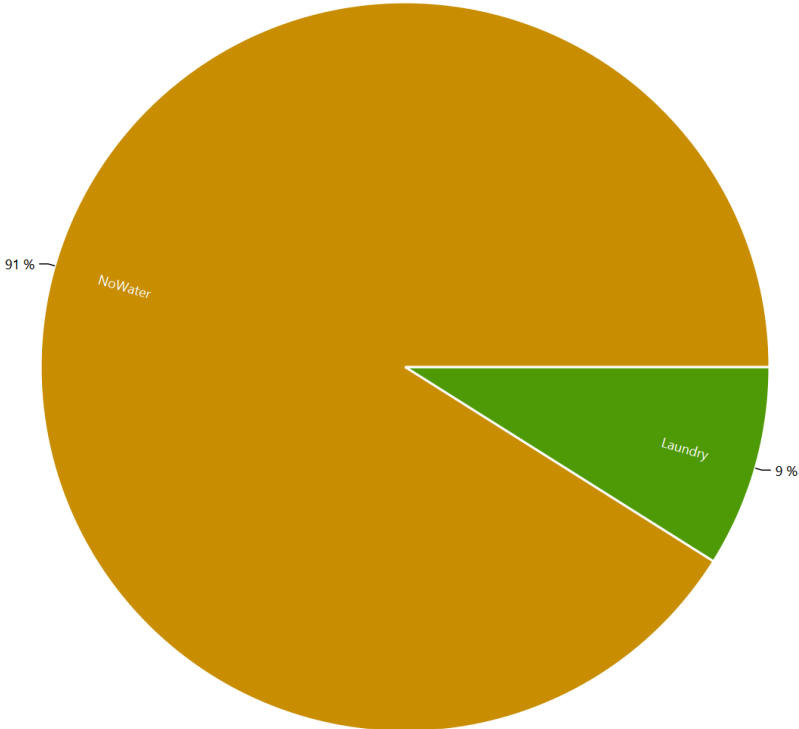
## HH0 - Destatis Water Usage Statistics - Cold Water



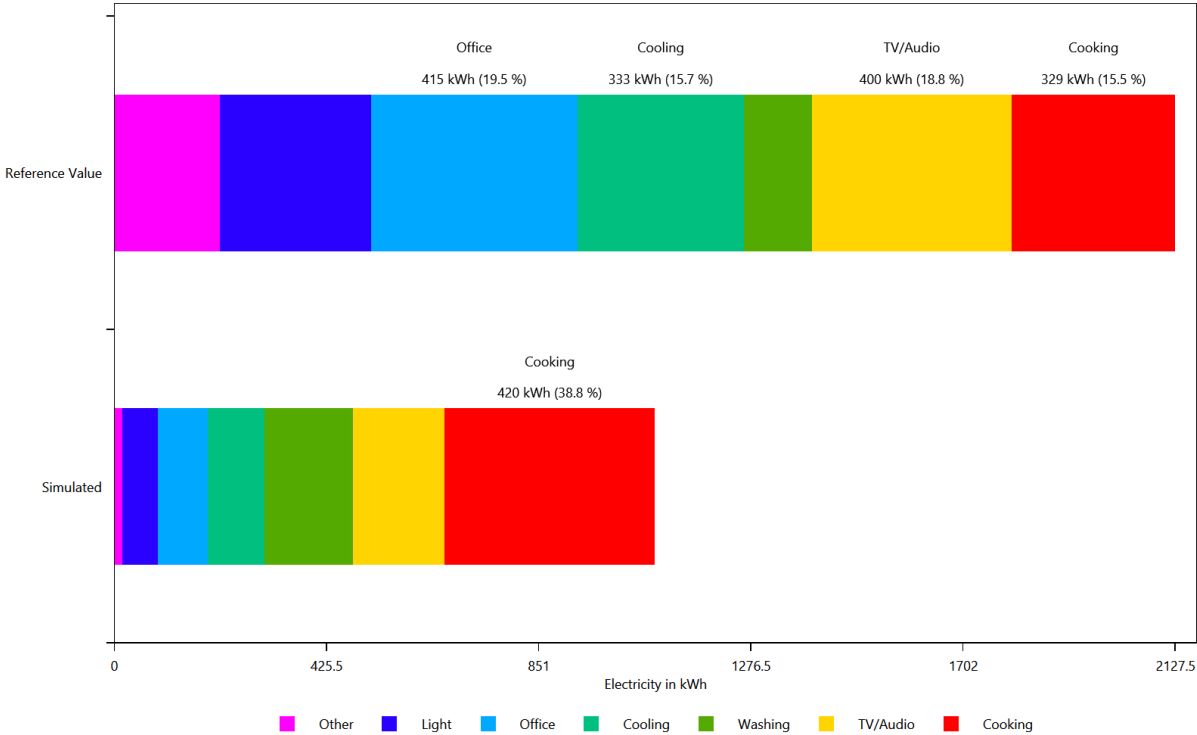
HH0 - Energieagentur - Cold Water



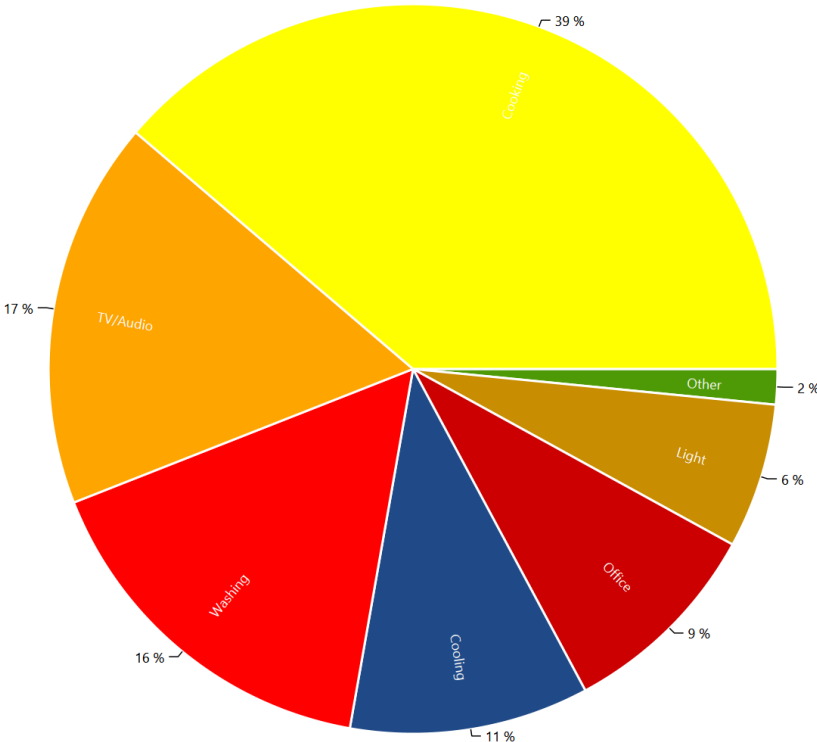
HH0 - Destatis Water Usage Statistics - Electricity



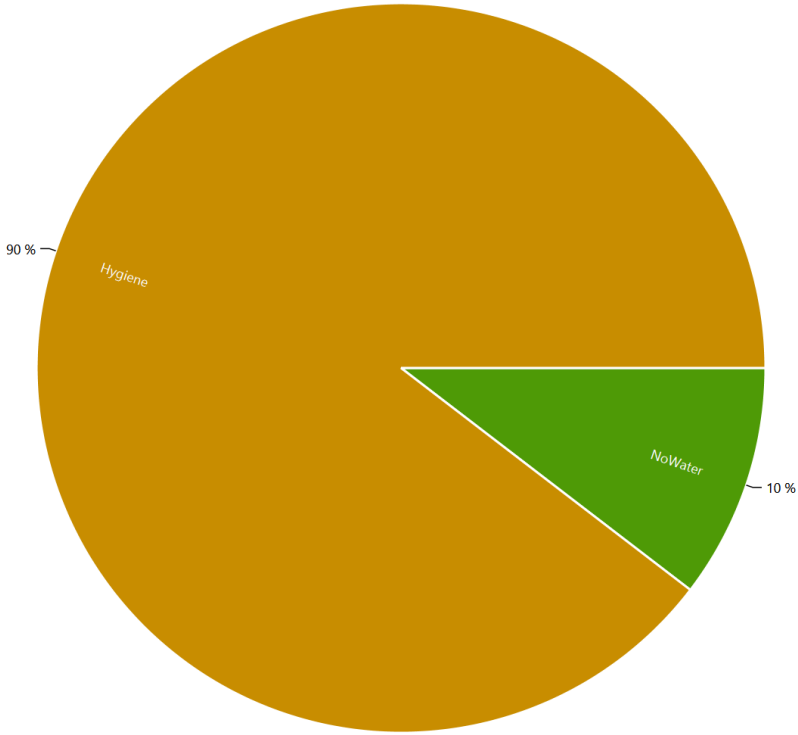
# HH0 - Energieagentur - Electricity



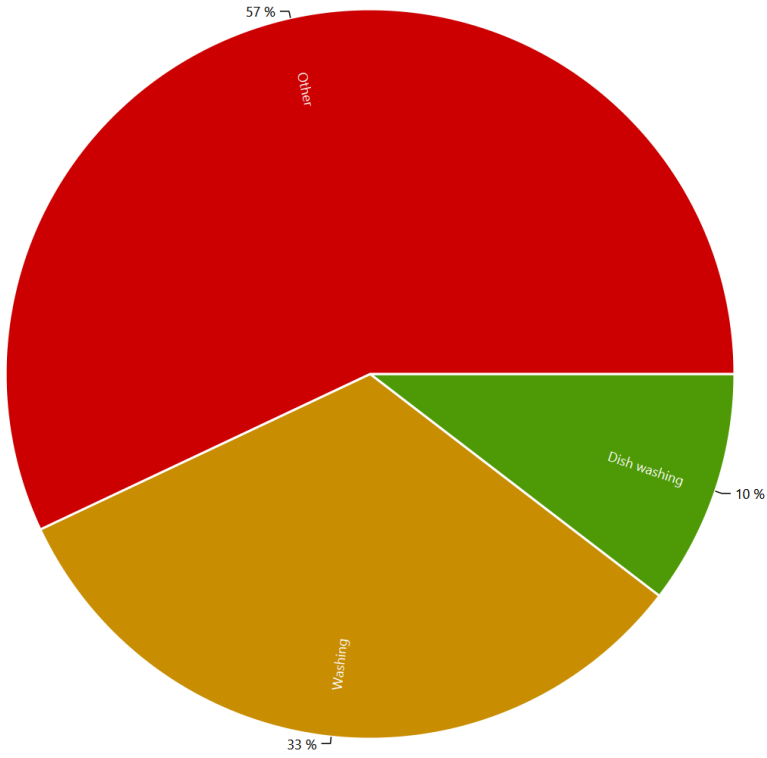
# HH0 - Energieagentur - Electricity



HH0 - Destatis Water Usage Statistics - Warm Water



HH0 - Energieagentur - Warm Water

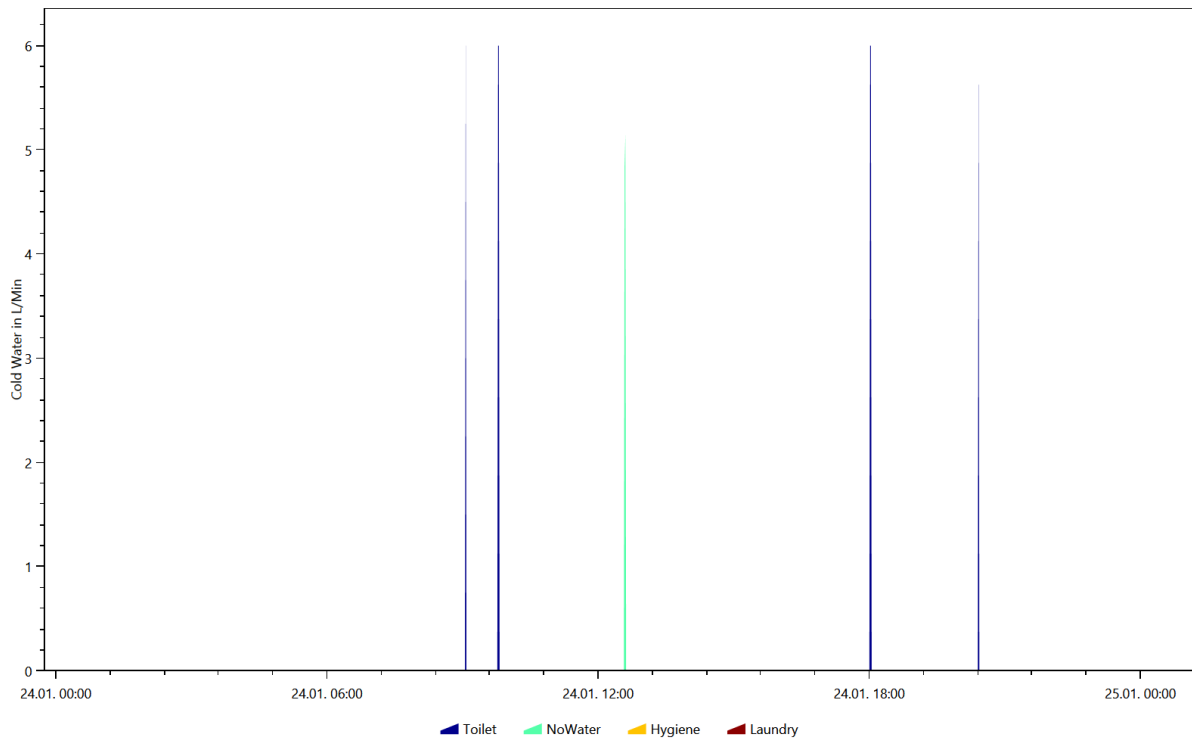


# Example of the device profiles for each load type

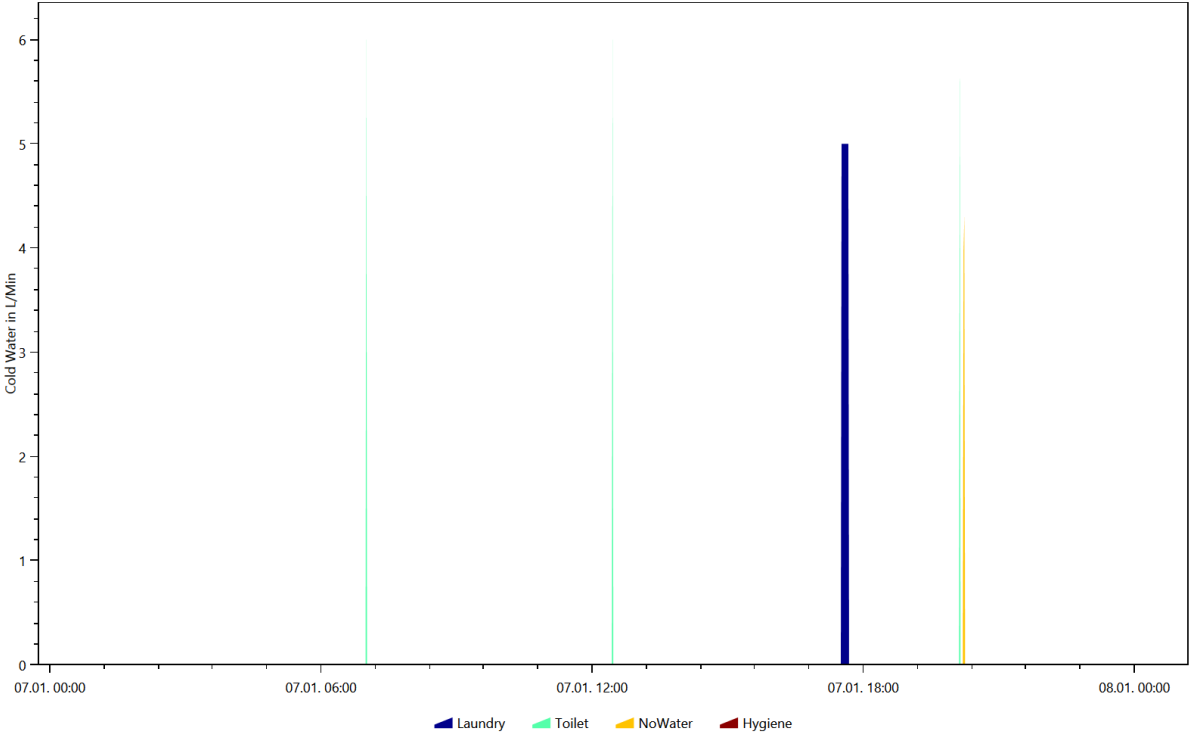
This is made from the files starting with: DeviceProfiles

The device profile files are the reason for the LPG. They show the power consumption of each device.

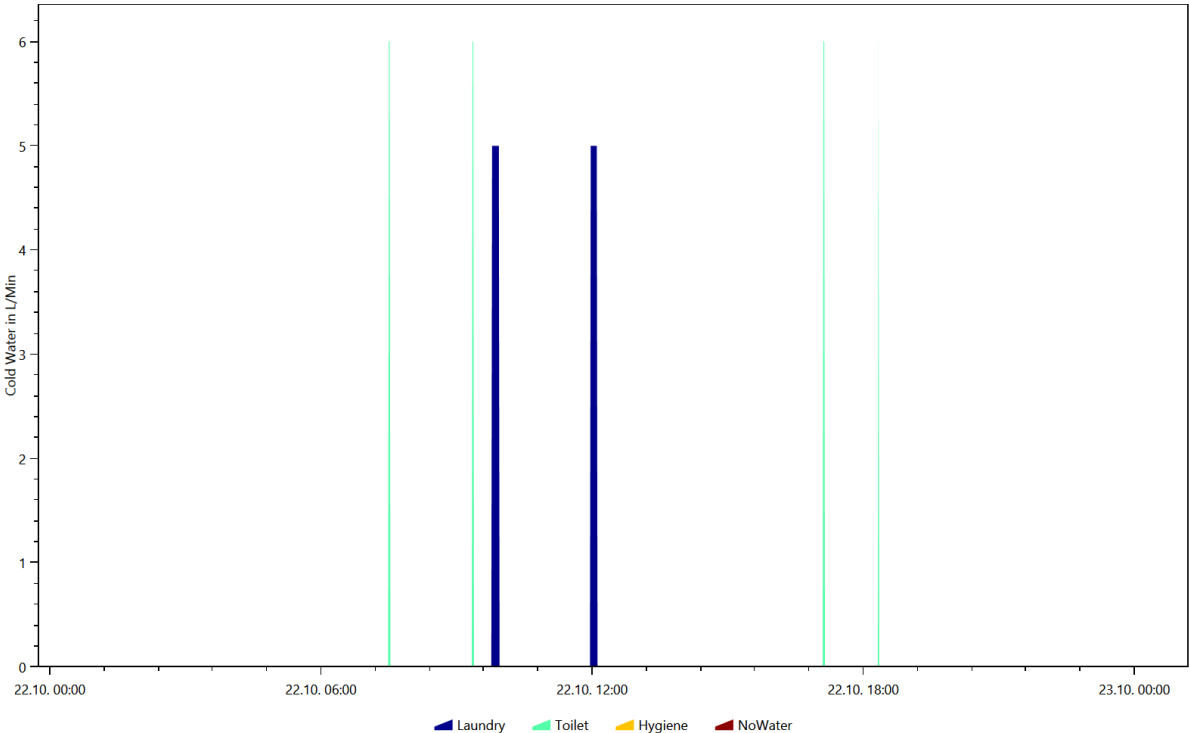
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.1.24



Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.1.7

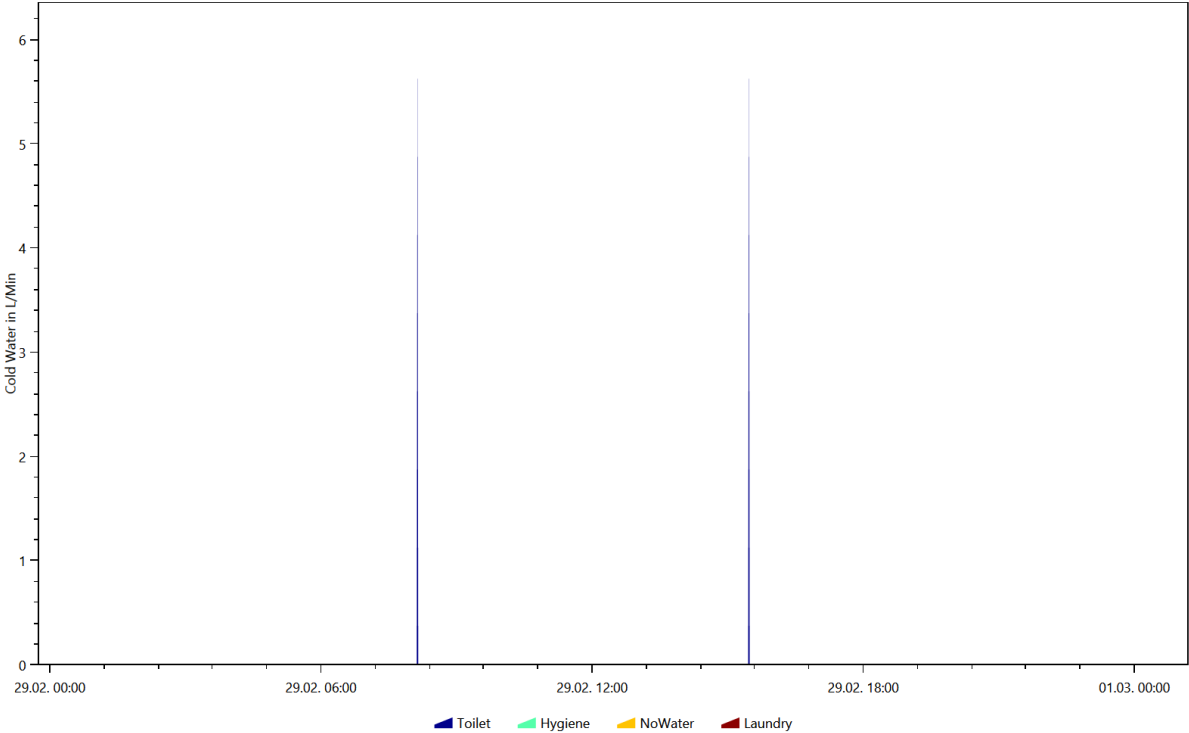


Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.10.22

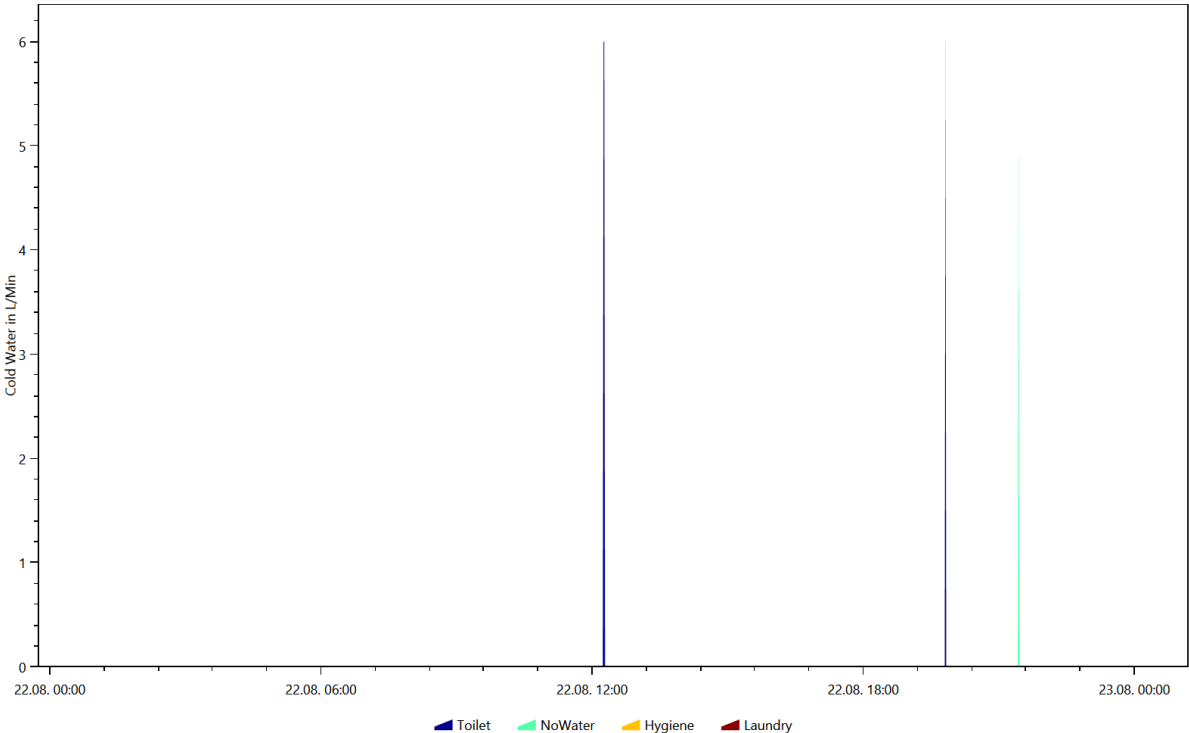




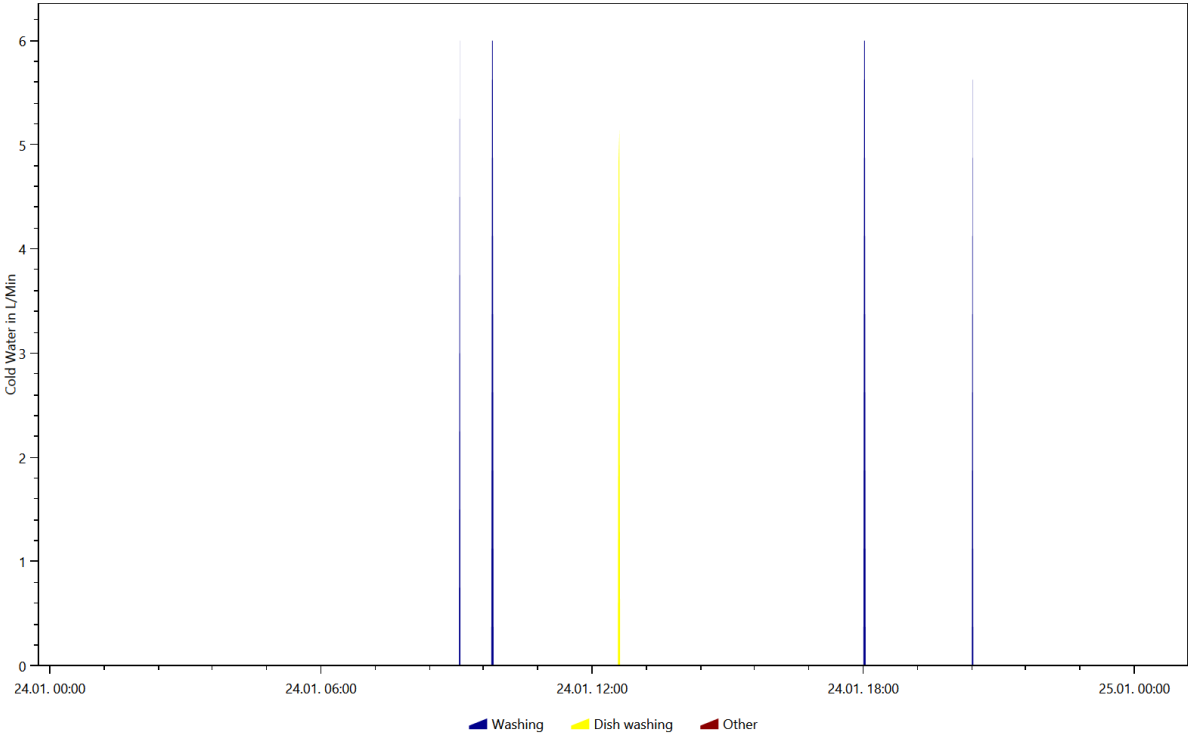
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.2.29



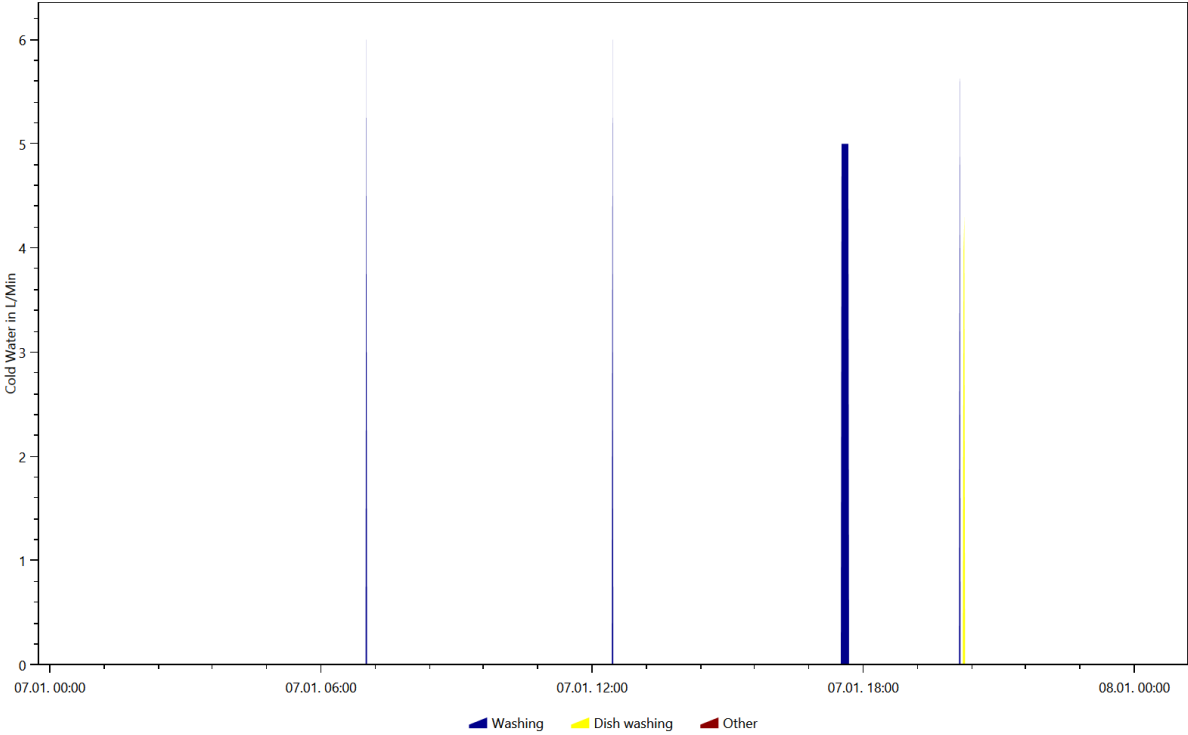
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.8.22



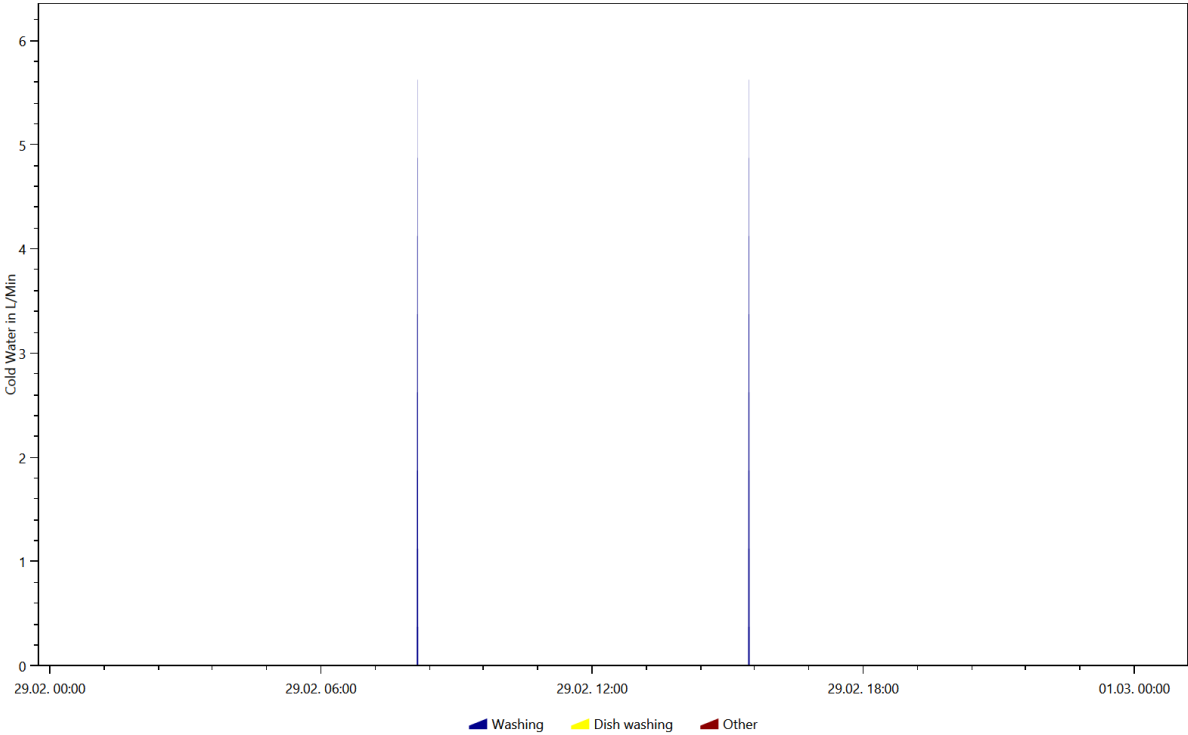
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.1.24



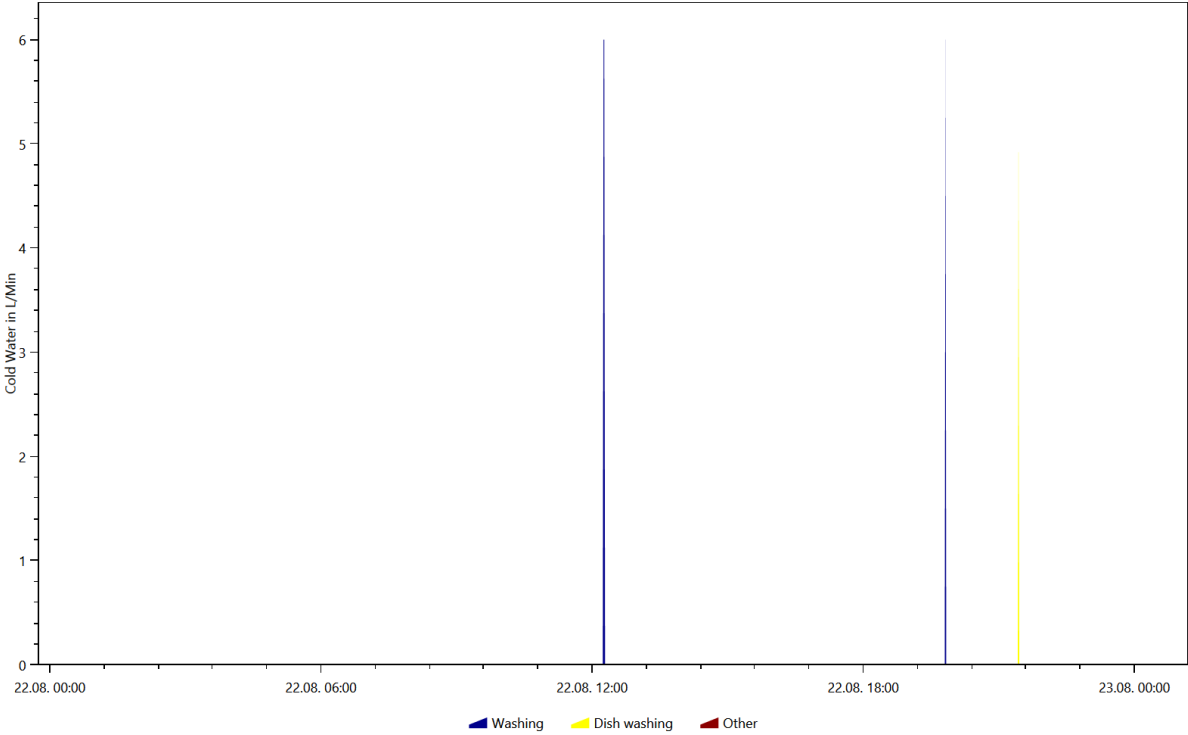
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.1.7



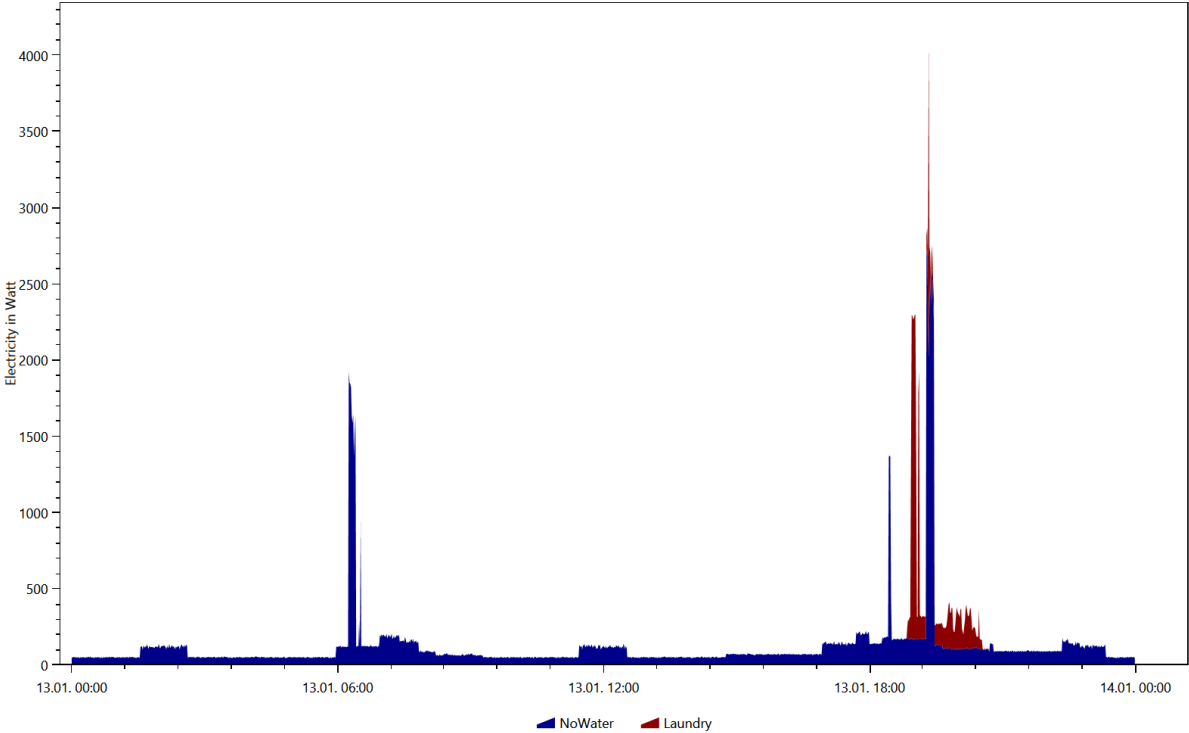
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.2.29



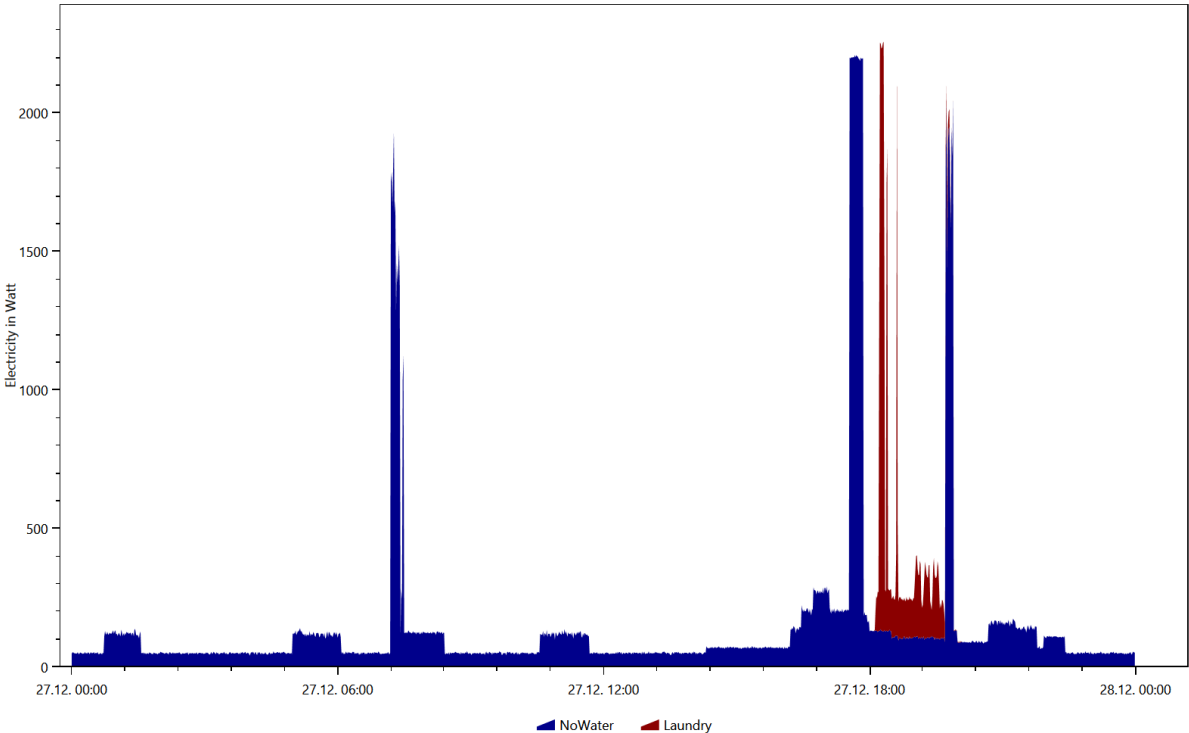
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.8.22



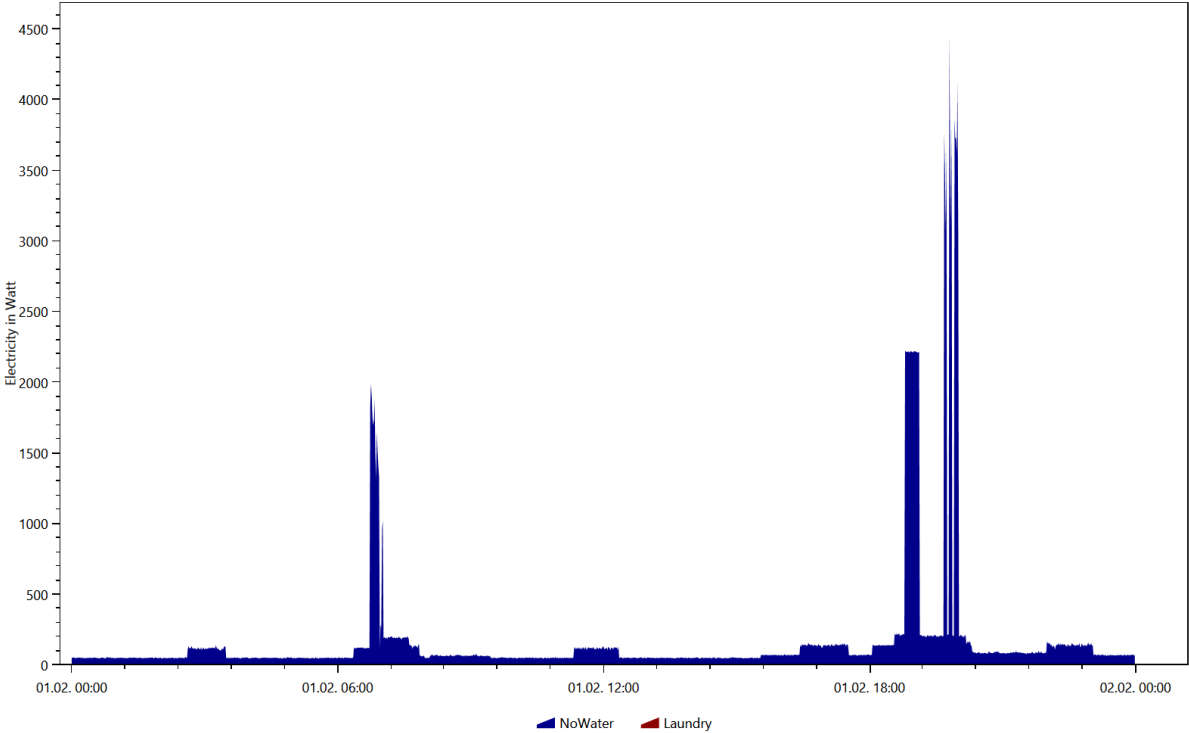
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.1.13



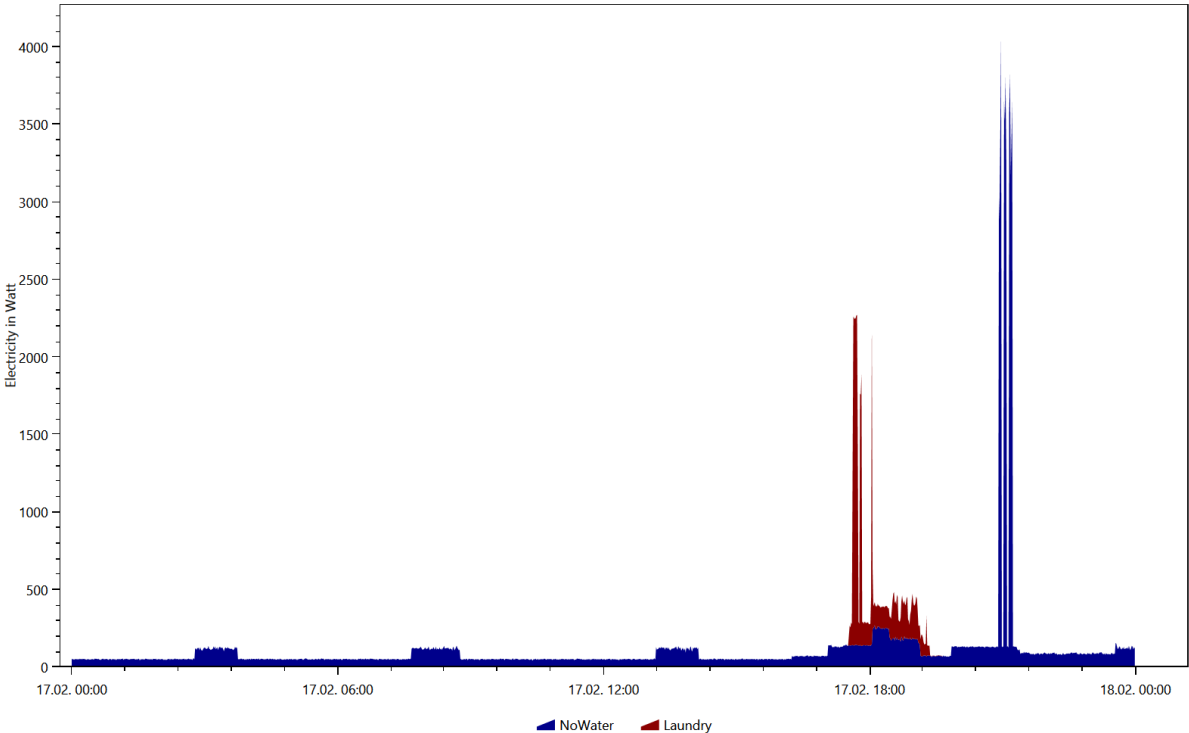
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.12.27



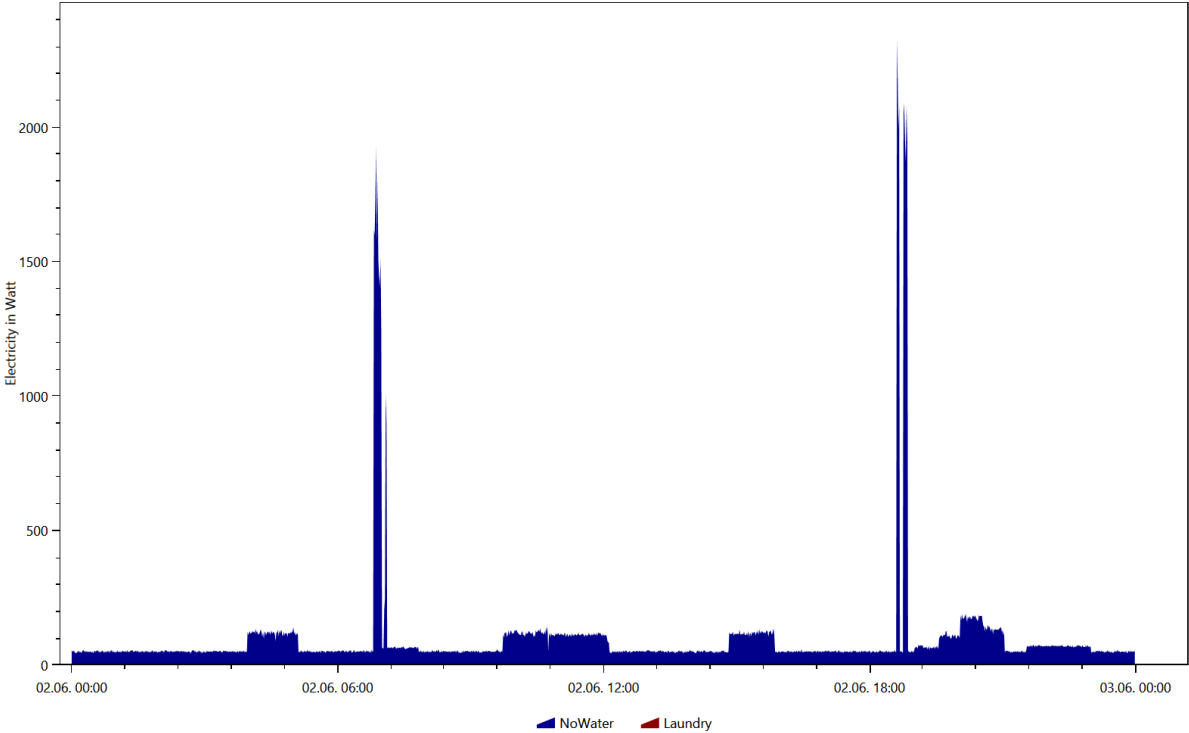
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.2.1



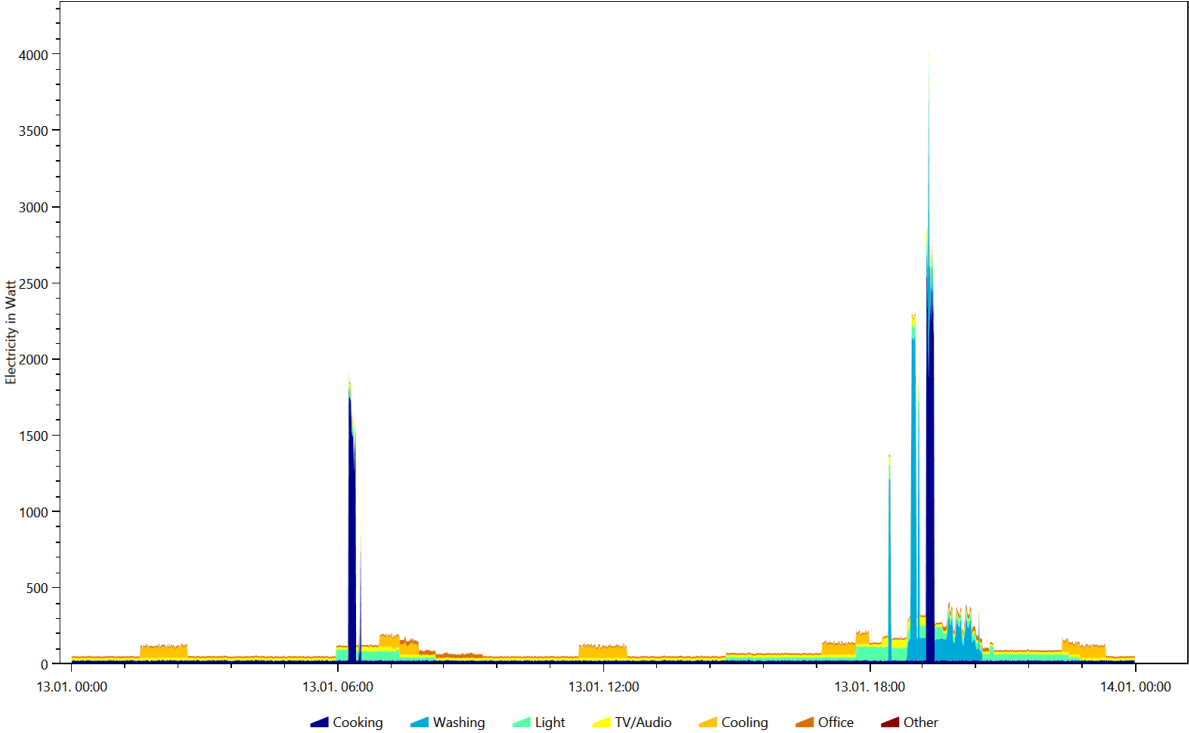
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.2.17



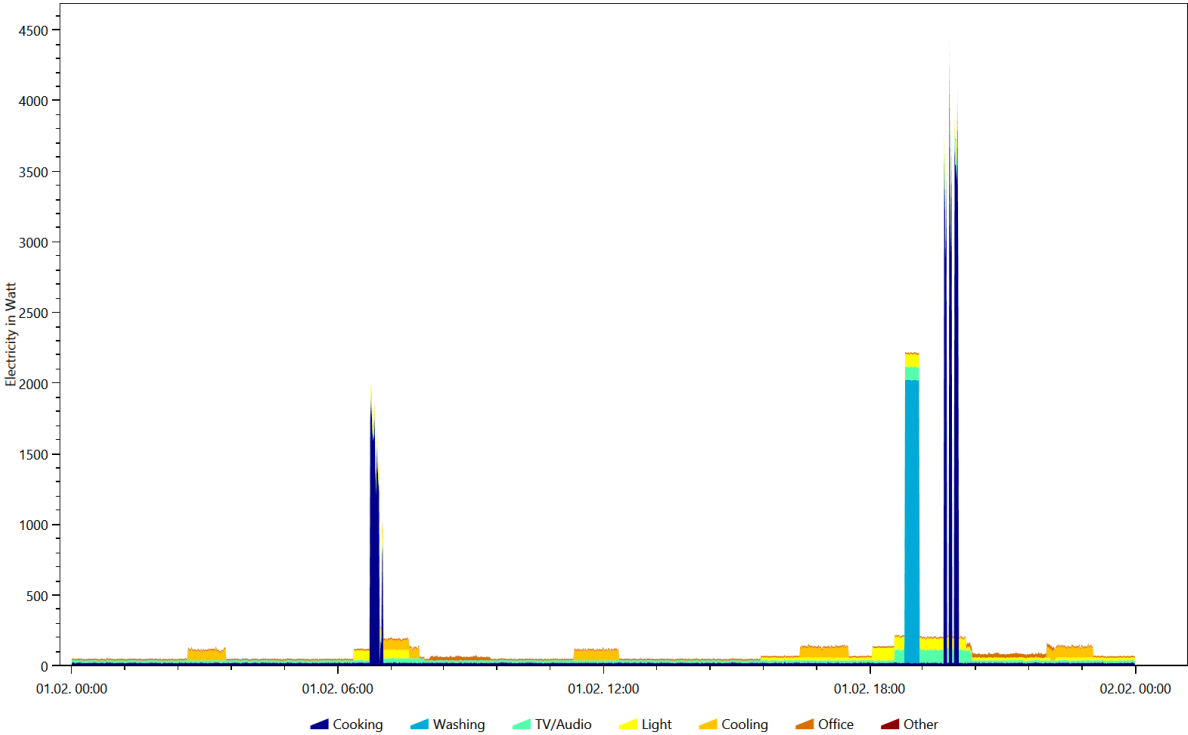
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.6.2



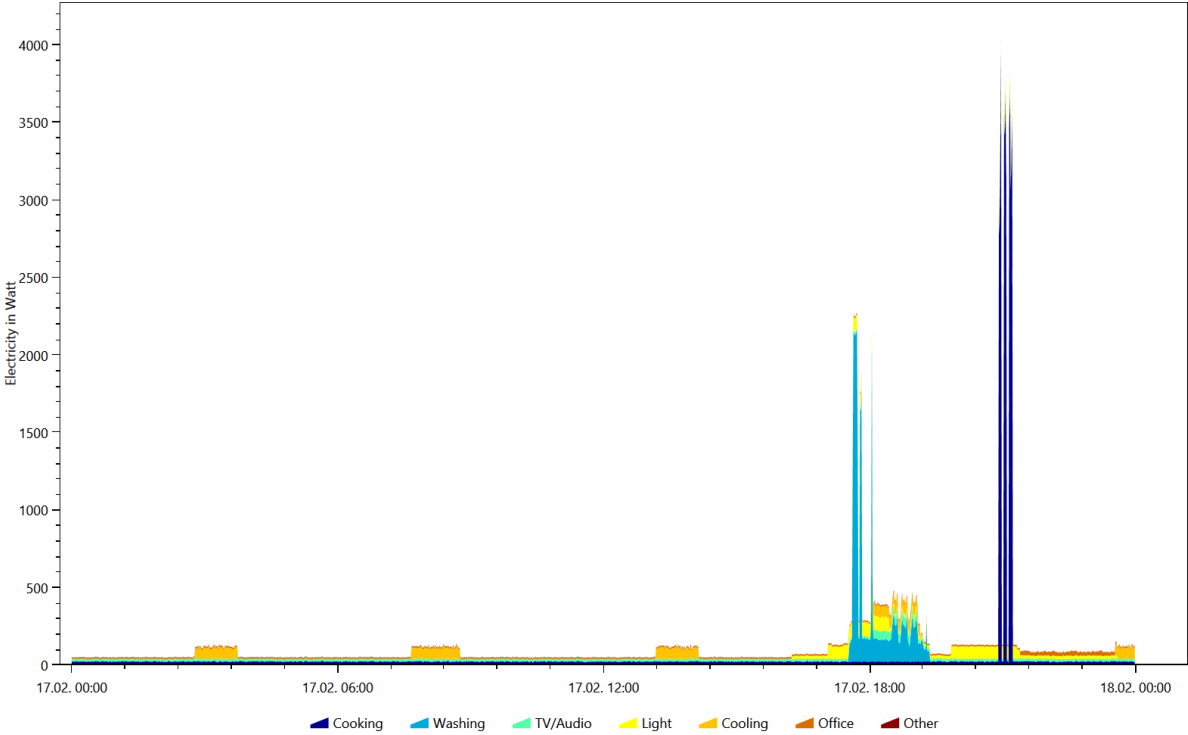
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.1.13



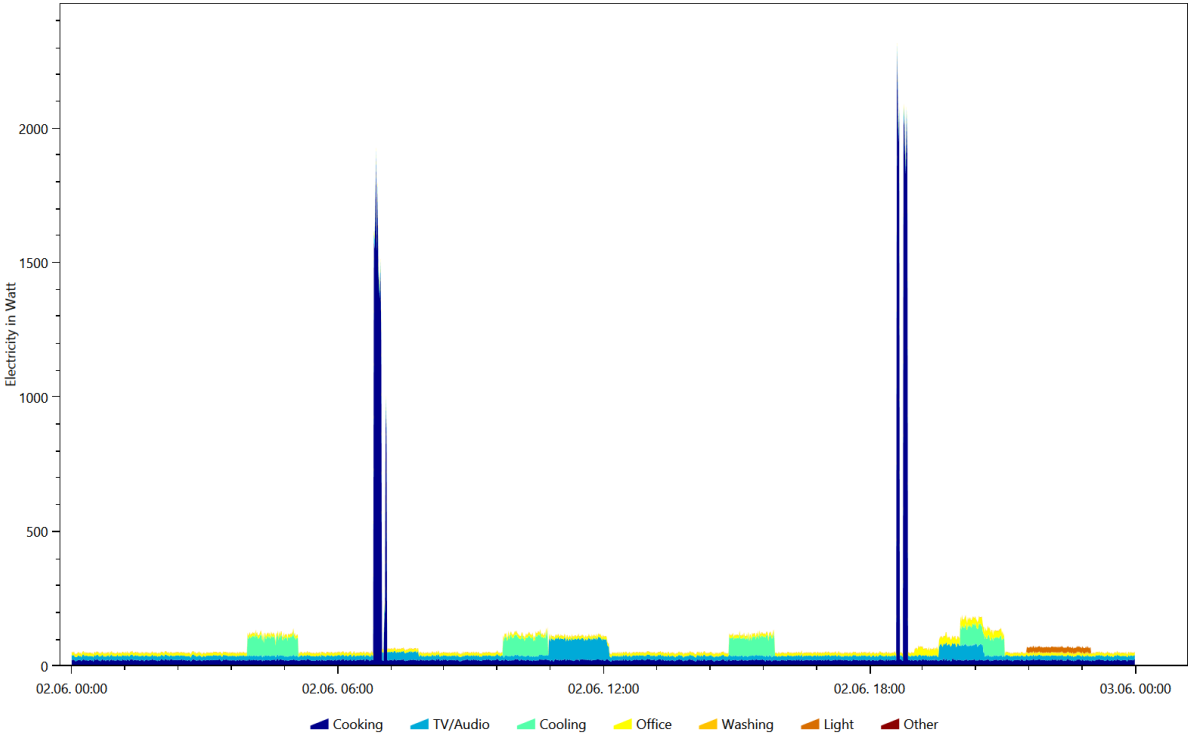
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.2.1



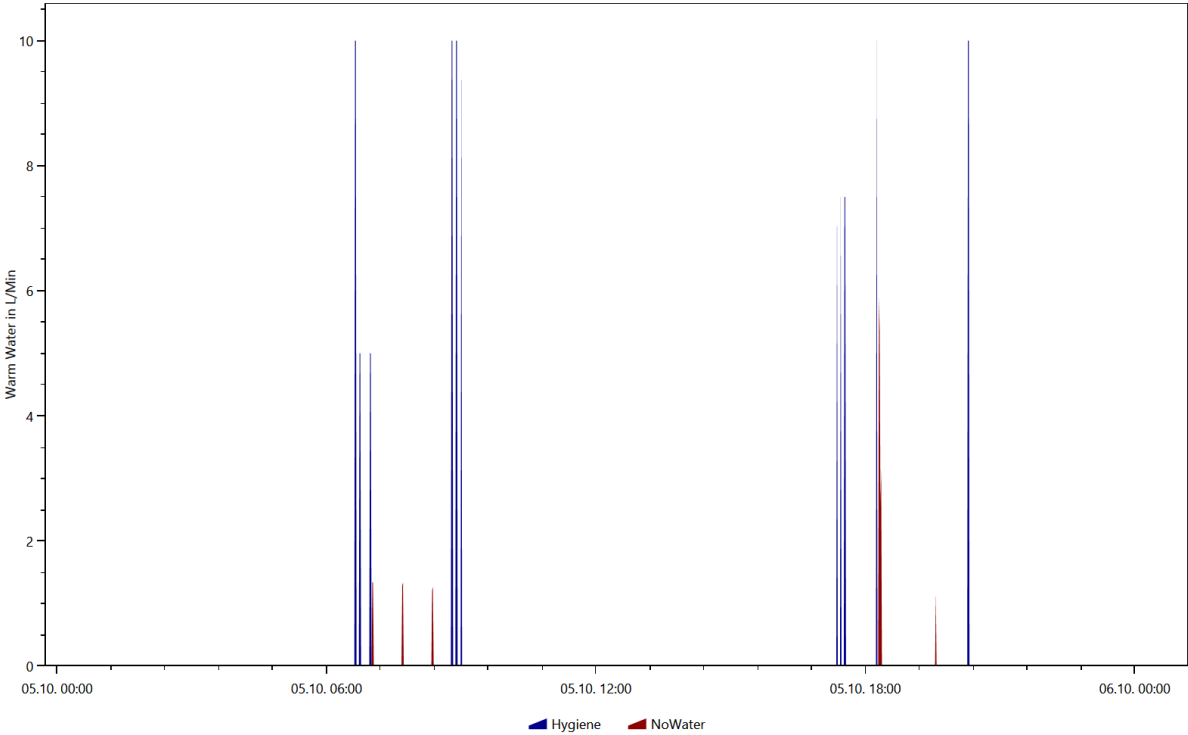
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.2.17



Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.6.2

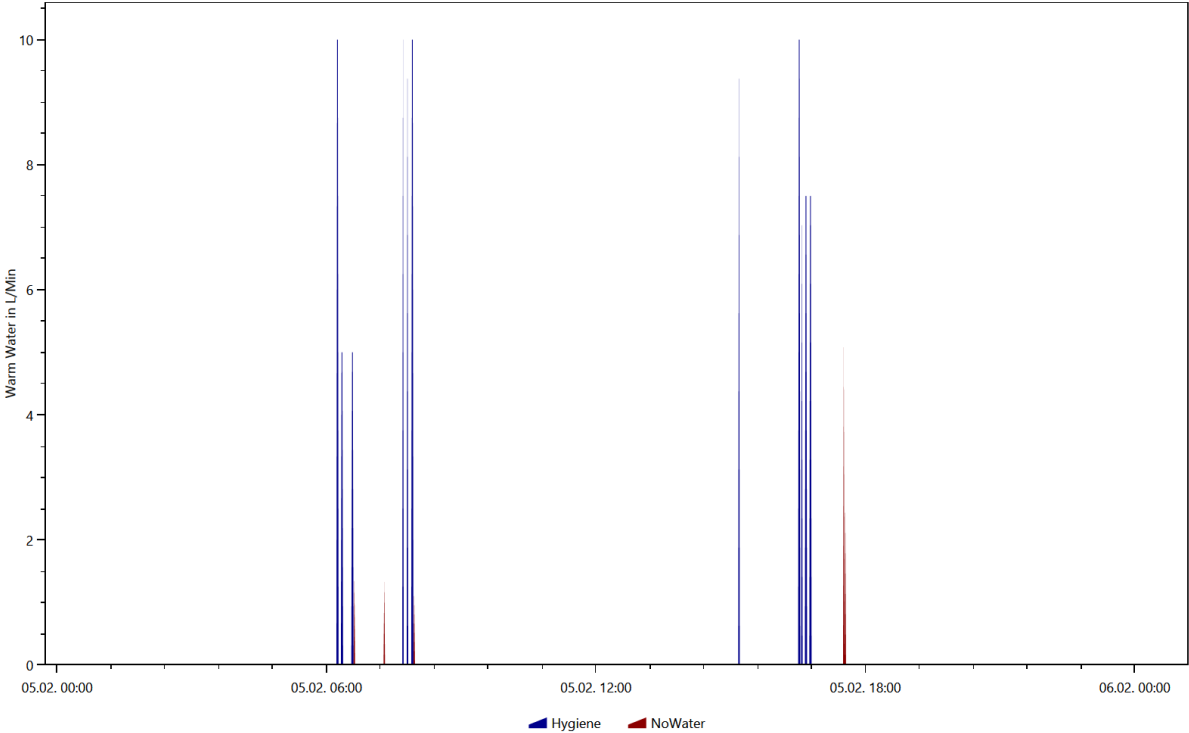


Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.10.5

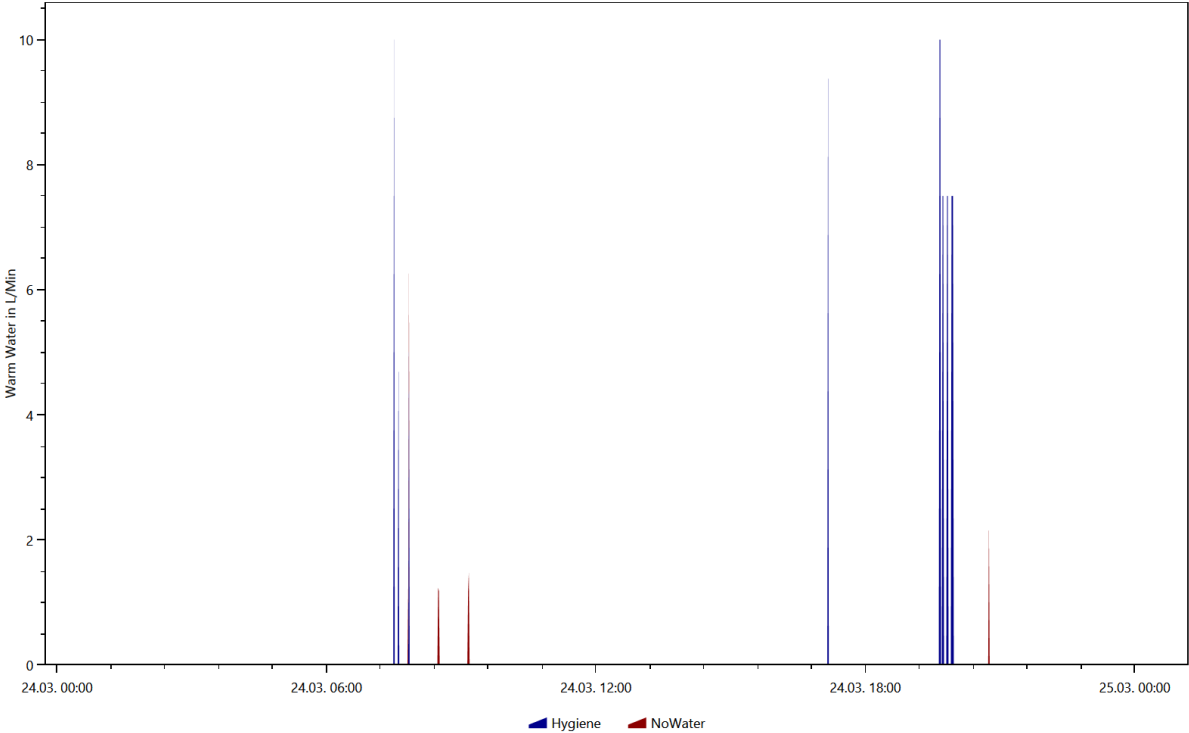




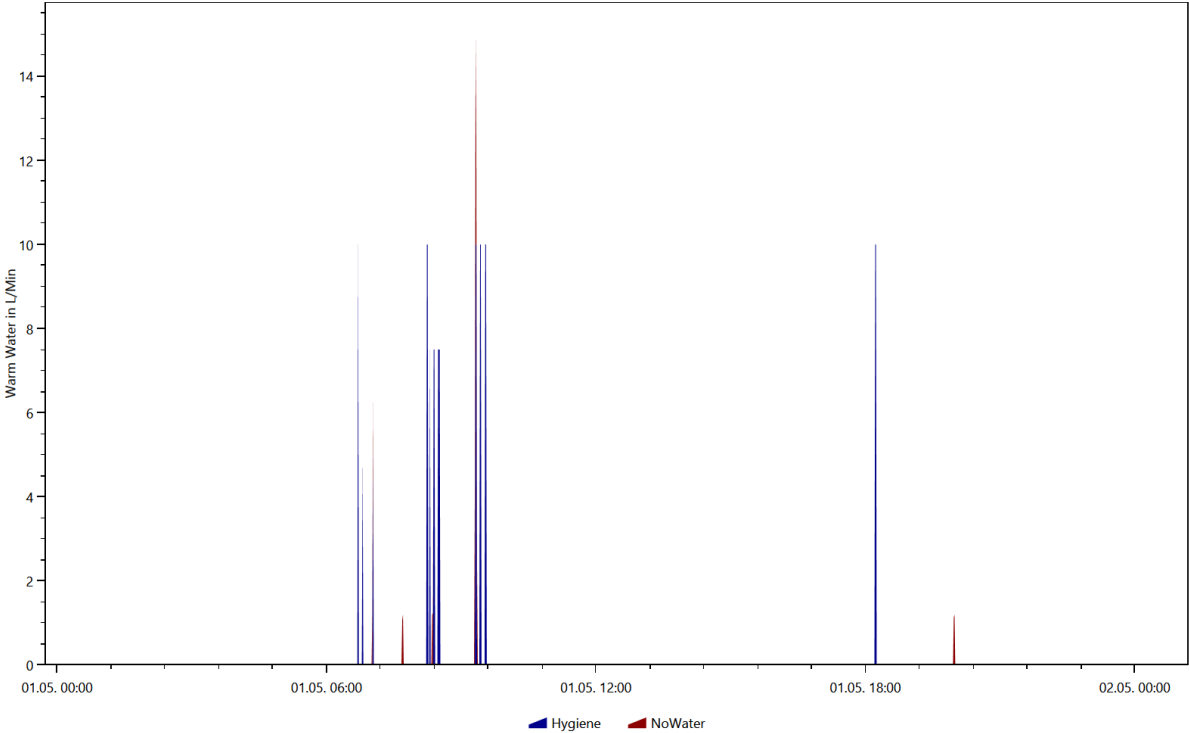
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.2.5



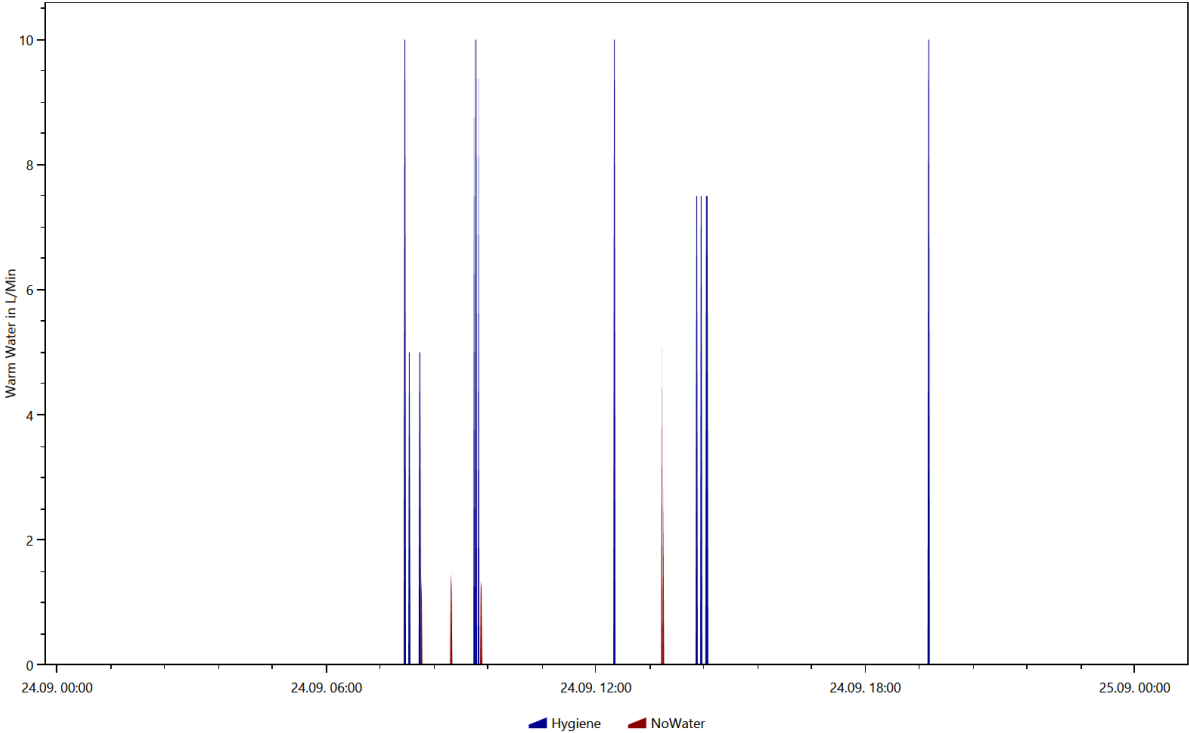
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.3.24



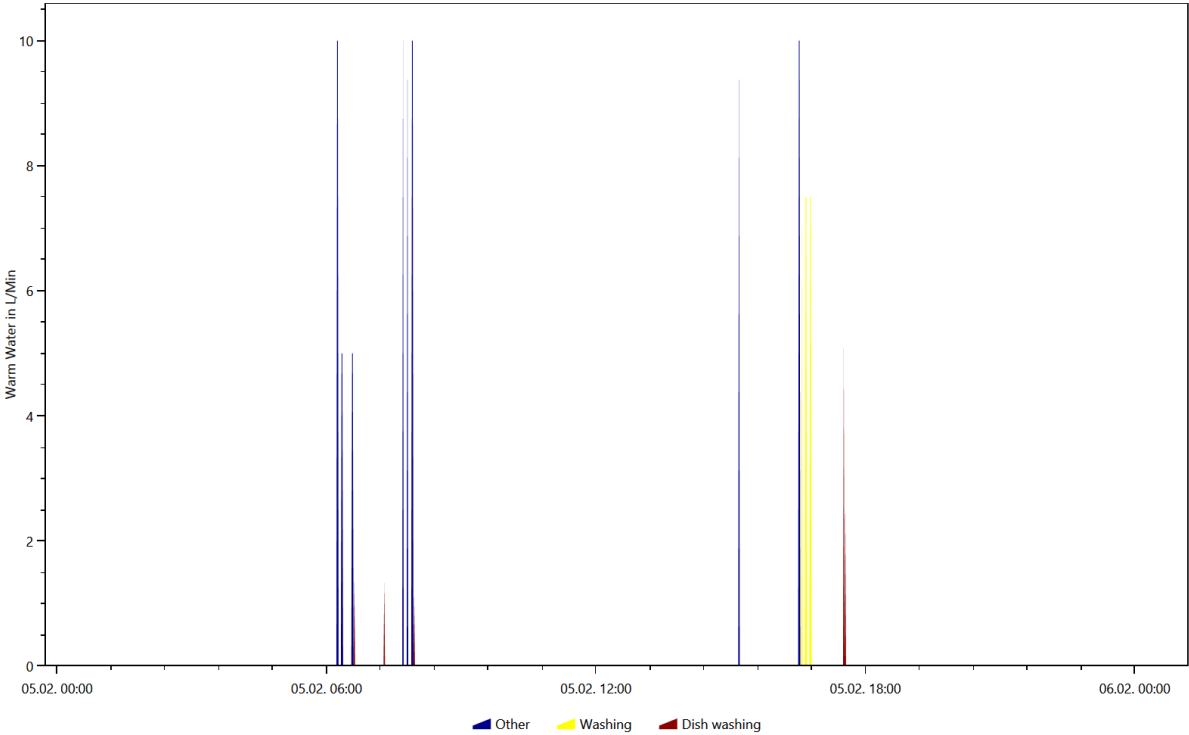
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.5.1



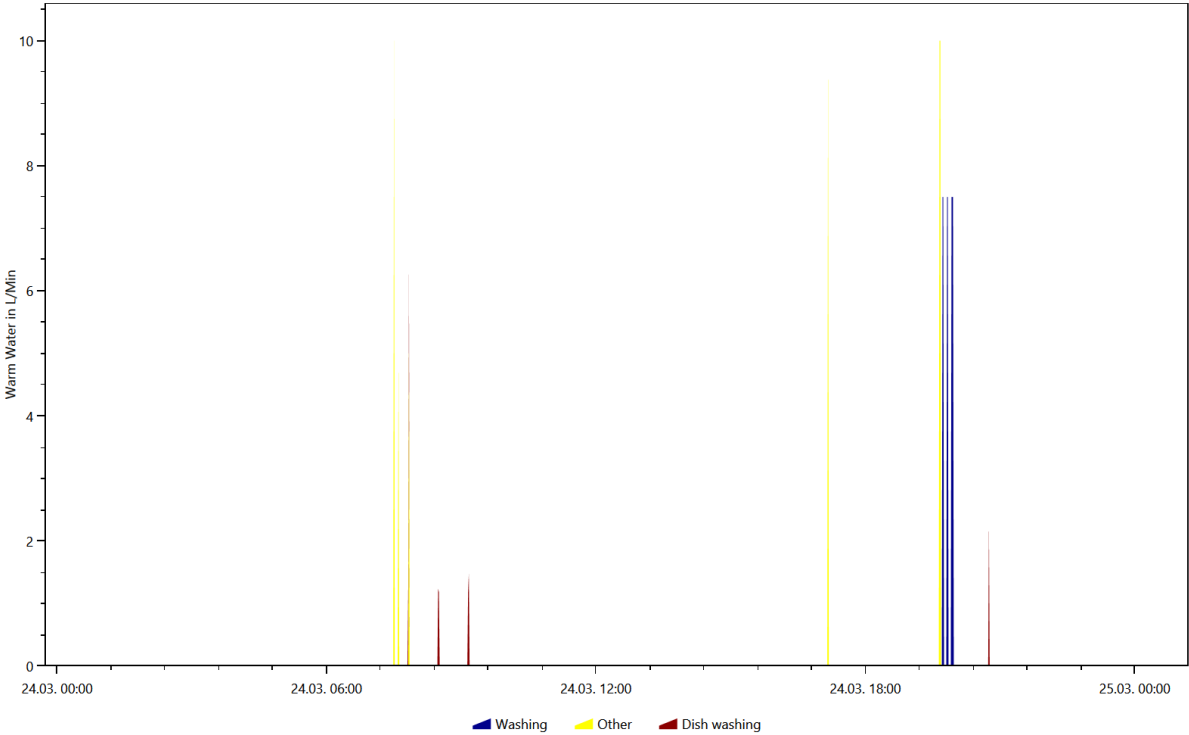
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.9.24



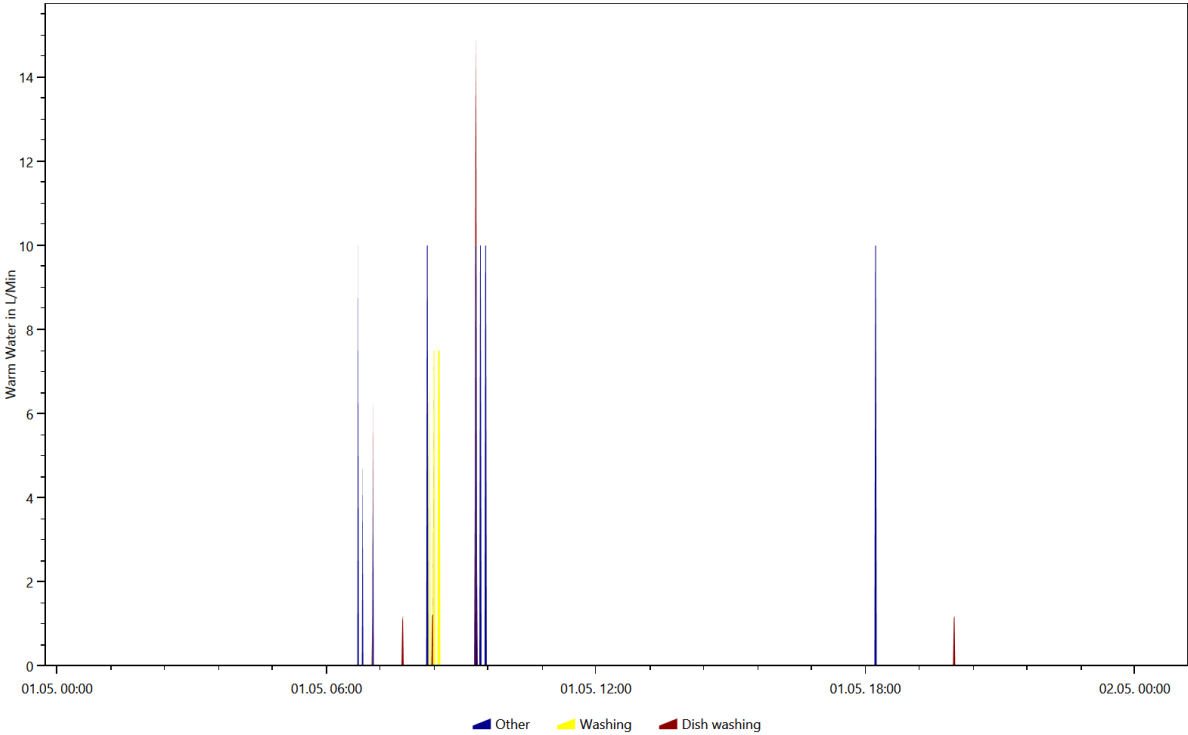
Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.2.5



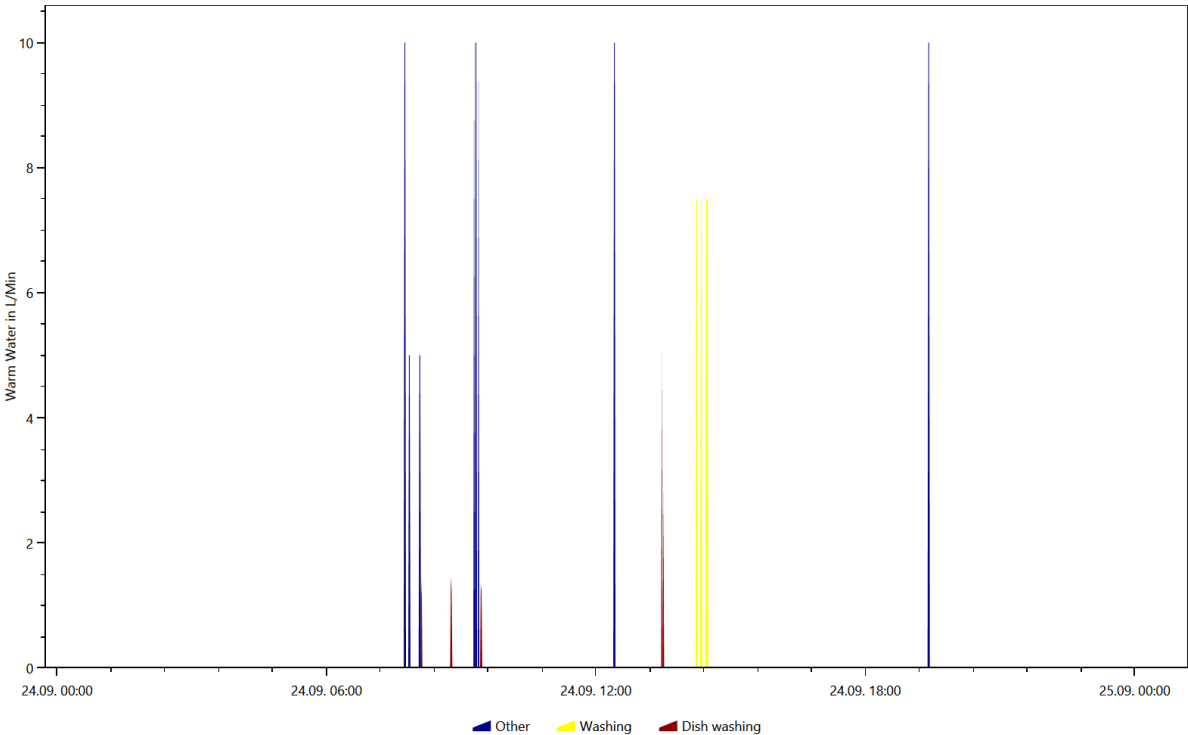
Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.3.24



Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.5.1



Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.9.24

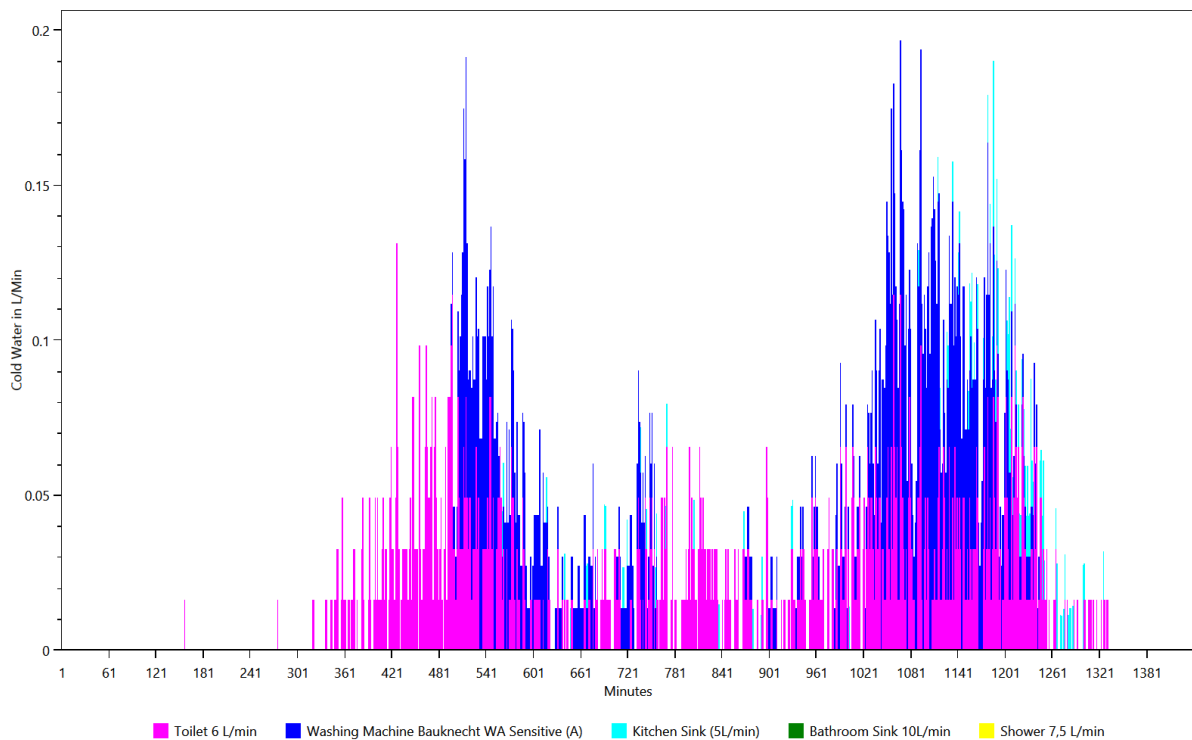


# Overview of the time and power of the use per load type per device

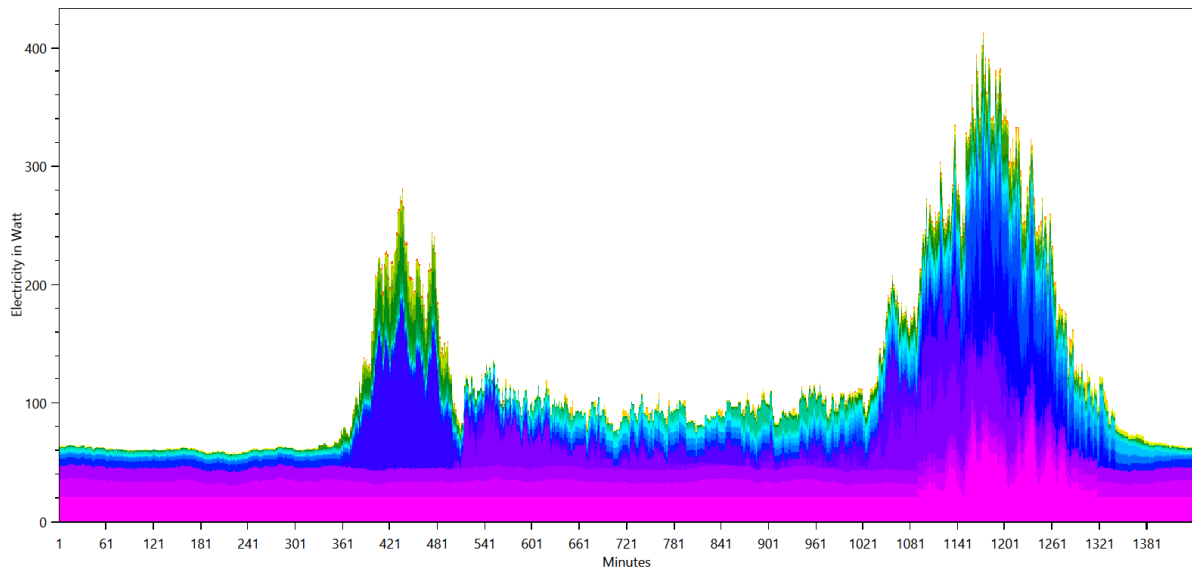
This is made from the files starting with: **TimeOfUseEnergyProfiles**

The time of use energy profiles show when each device was used and how much power it used.

## Cold Water

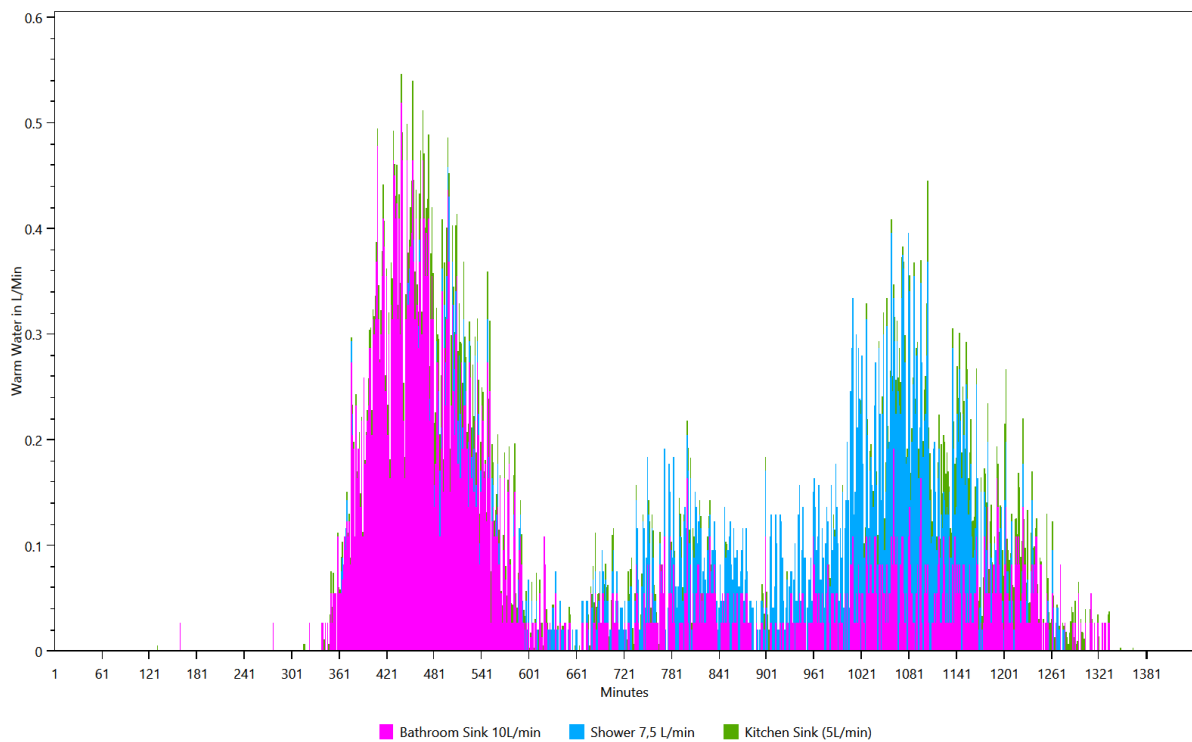


## Electricity



- Microwave / Panasonic NN-V 359 W Inverter
- Hair Dryer Babylyss 2000
- Kitchen Stove / Bauknecht Heko 750 PT Kitchen stove front left
- Living Room Light (Energy Saving Lamp, 20W)
- Canister Vacuum Cleaner / Siemens Z6.0 VSZ61260
- Bathroom Light (60W)
- Children Room Light Device (20W)
- Miele DA 249-2
- Liebherr CBNPes 3956
- Coffee Machine / Braun KF 580E
- TV Medion MD20123\_DE\_A
- Kitchen Stove / Bauknecht Heko 750 PT Kitchen stove left hind- semi aktiv
- Toaster / Bosch TAT8SL1
- Oven / AEG B 33512-5-M
- Laptop Sony Vaio SVE151G11M
- SAT Receiver / Kathrein UFS913
- Kitchen Light (60W)
- Kitchen radio / AEG KRC 4323 CD
- Bedroom Light (20W)
- Phone / Gigaset E310
- Food Slicer / DOMO Schneidemaschine DO521S
- Yamaha RX-V667
- Washing Machine Bauknecht WA Sensitive (A)
- Router O2 Box 6431
- CD/DVD Player / Philips DVDR 725 H
- Electric Tooth Brush / Phillips HX9332
- Moulinex electronic 833
- Egg Cooker / Russell Hobbs 14048-56 Stylo
- Electric Kettle / Petra WK288 1.5L
- LED Lamp Globe E 14 Ambient 3W matt

## Warm Water



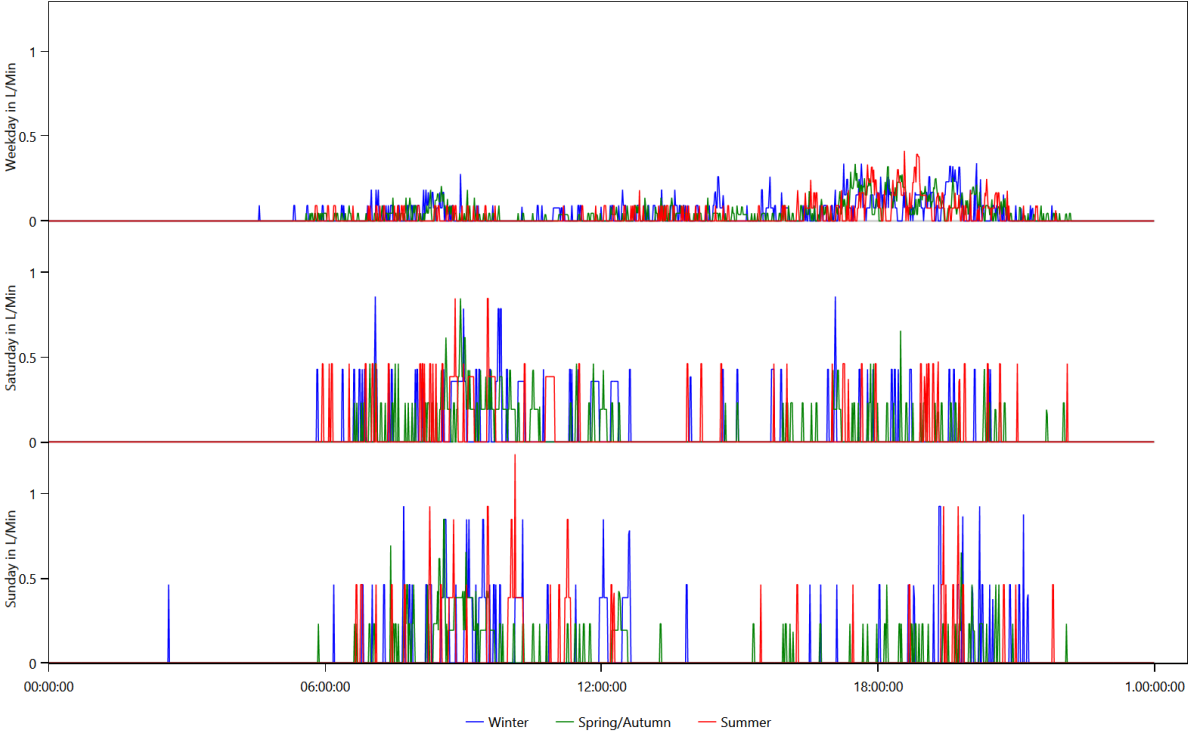
- Bathroom Sink 10L/min
- Shower 7,5 L/min
- Kitchen Sink (5L/min)

# Energy use per load type during different seasons, split by weekday/saturday/sunday

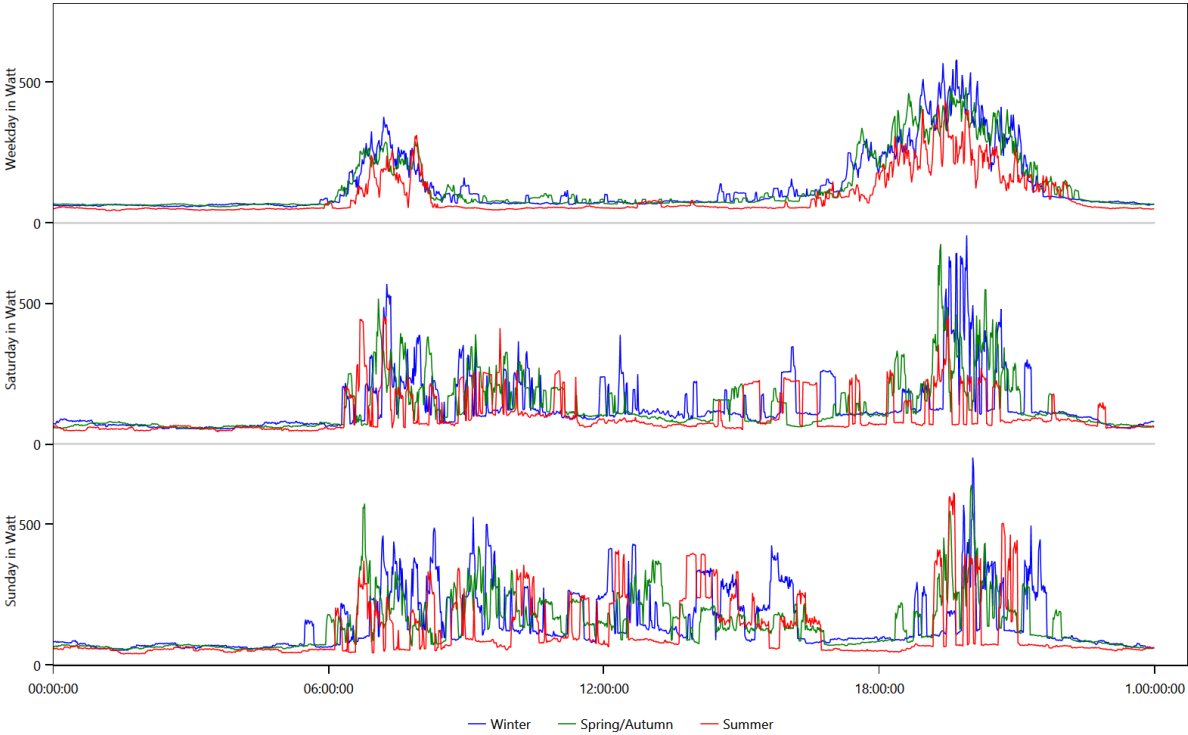
This is made from the files starting with: WeekdayProfiles

This graph shows for each load type the average power consumption per day grouped byseason and weekday/saturday/sunday.

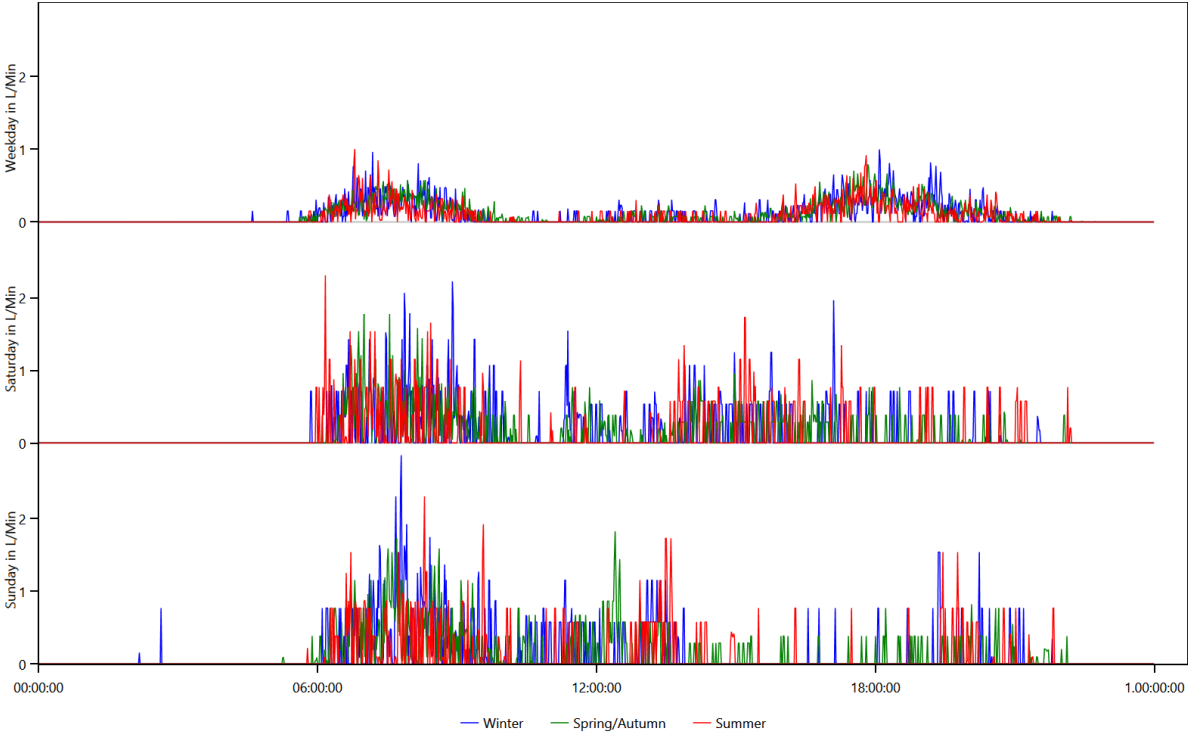
## Cold Water



# Electricity



# Warm Water



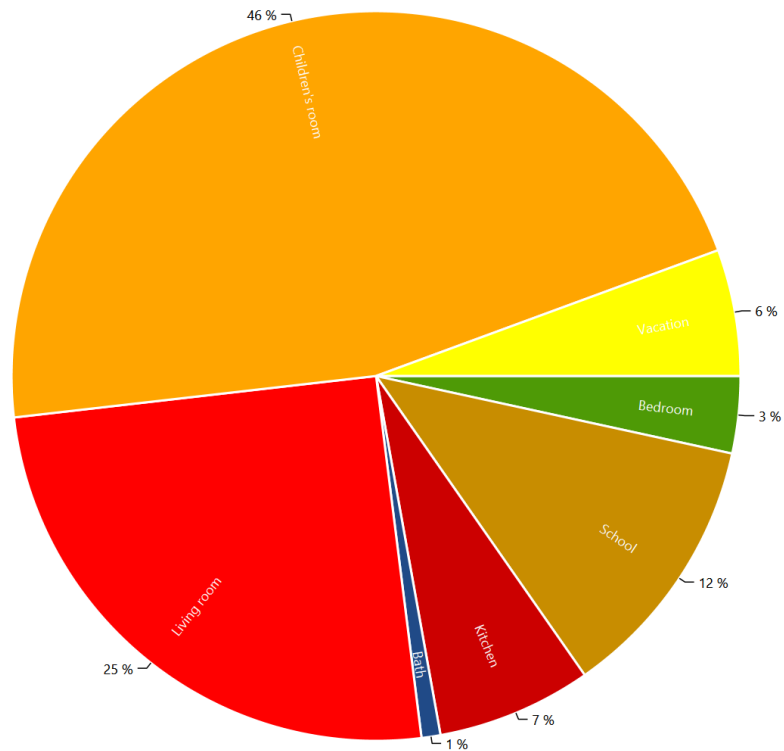


# Location Distribution per Person

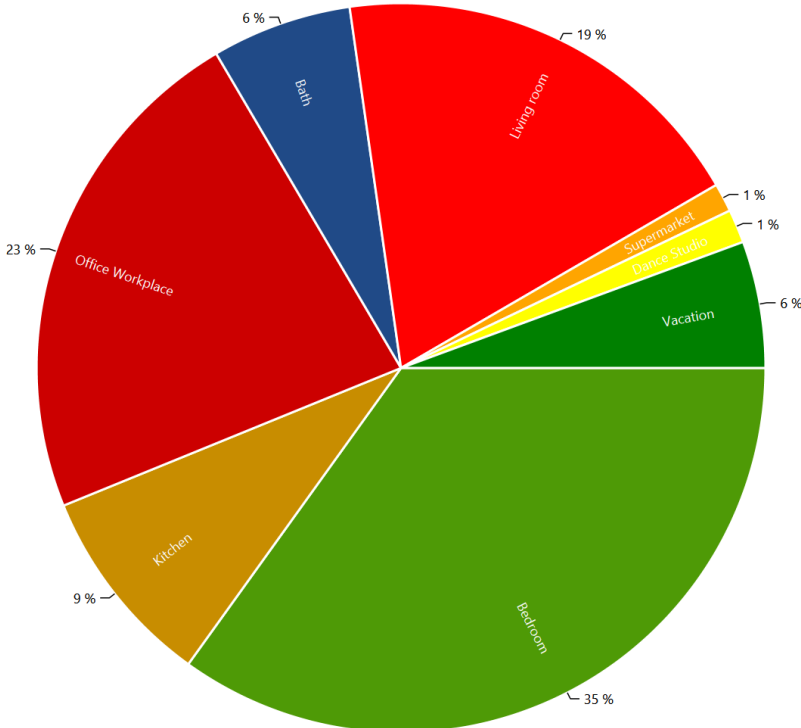
This is made from the files starting with: LocationStatistics

These charts show where the persons spend their time.

CHR22 Anja (7 Female)



CHR22 Fiona (28 Female)



# Actions.csv

## This is made from the files starting with: Actions

These files show the actions of each person in the household. The content looks like this:

Actions.HH0.csv

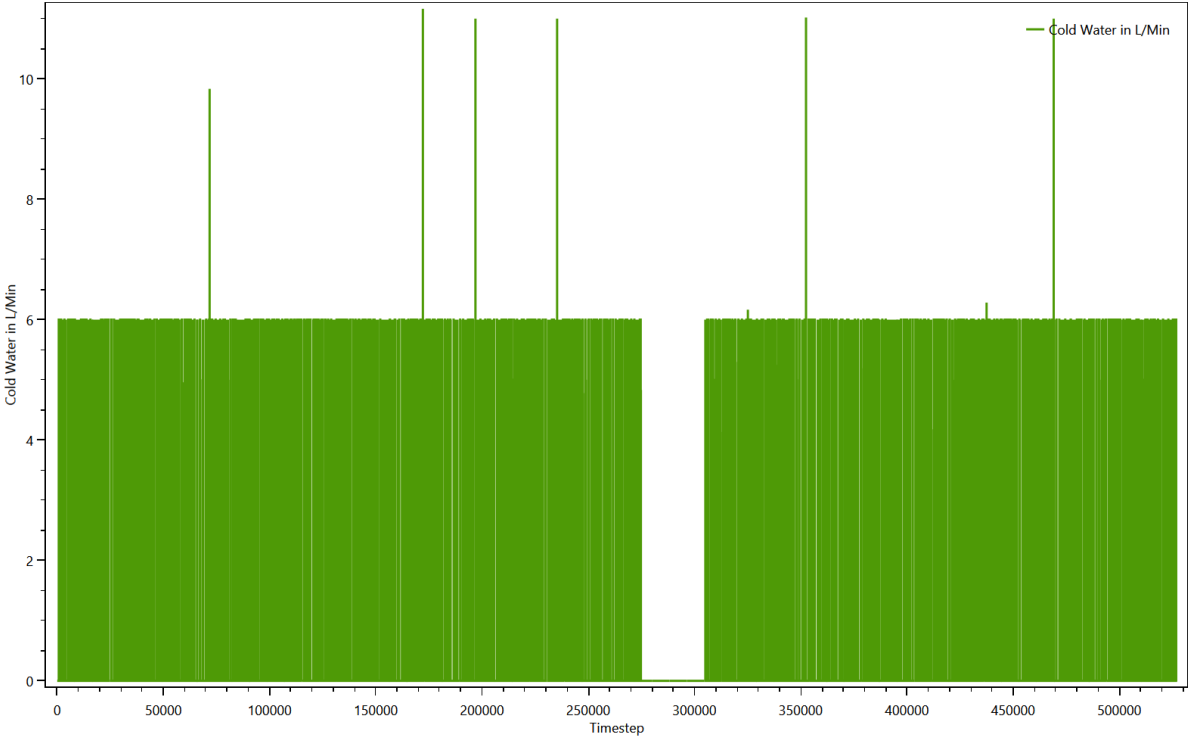
Time step;Calendertime;Person;Selected affordance;Affordance Category;Is Sick  
0;01.01.2016 00:00;CHR22 Anja (7/Female);sleep bed 03 (10 h) Child;sleep;False;  
0;01.01.2016 00:00;CHR22 Fiona (28/Female);sleep bed 08 (08 h);sleep;False;  
393;01.01.2016 06:33;CHR22 Anja (7/Female);go to primary school ;school;False;  
469;01.01.2016 07:49;CHR22 Fiona (28/Female);eat breakfast (1 h);cooking;False;  
532;01.01.2016 08:52;CHR22 Fiona (28/Female);work at the office from 8:00 (9 h);work;False;  
748;01.01.2016 12:28;CHR22 Anja (7/Female);go to the toilet;hygiene;False;  
754;01.01.2016 12:34;CHR22 Anja (7/Female);read a book on the couch all the time;Offline  
Entertainment;False;  
879;01.01.2016 14:39;CHR22 Anja (7/Female);study at home;school;False;  
945;01.01.2016 15:45;CHR22 Anja (7/Female);play with toys (2 h);Offline Entertainment;False;  
1059;01.01.2016 17:39;CHR22 Anja (7/Female);watch a movie for 2 h;Passive Entertainment (TV etc.);False;  
1083;01.01.2016 18:03;CHR22 Fiona (28/Female);go to the toilet;hygiene;False;  
1088;01.01.2016 18:08;CHR22 Fiona (28/Female);take a shower with hair washing (women) (20 min hair  
drying);hygiene;False;  
1146;01.01.2016 19:06;CHR22 Fiona (28/Female);do laundry at 30°C (by variable);cleaning;False;  
1160;01.01.2016 19:20;CHR22 Anja (7/Female);read a book on the couch only 9:00 to 22:00;Offline  
Entertainment;False;  
1163;01.01.2016 19:23;CHR22 Fiona (28/Female);wash 1 dishes by hand;cleaning;False;  
1189;01.01.2016 19:49;CHR22 Fiona (28/Female);heat up leftovers;cooking;False;  
1200;01.01.2016 20:00;CHR22 Anja (7/Female);eat a cooked meal (interrupting) (heat up  
leftovers);cooking;False;  
1210;01.01.2016 20:10;CHR22 Anja (7/Female);read a book on the couch only 9:00 to 22:00;Offline  
Entertainment;False;  
1210;01.01.2016 20:10;CHR22 Fiona (28/Female);use the laptop for Internet, Movie, Music, News (2 h);Active  
Entertainment (Computer, Internet etc);False;

# Sum Profiles

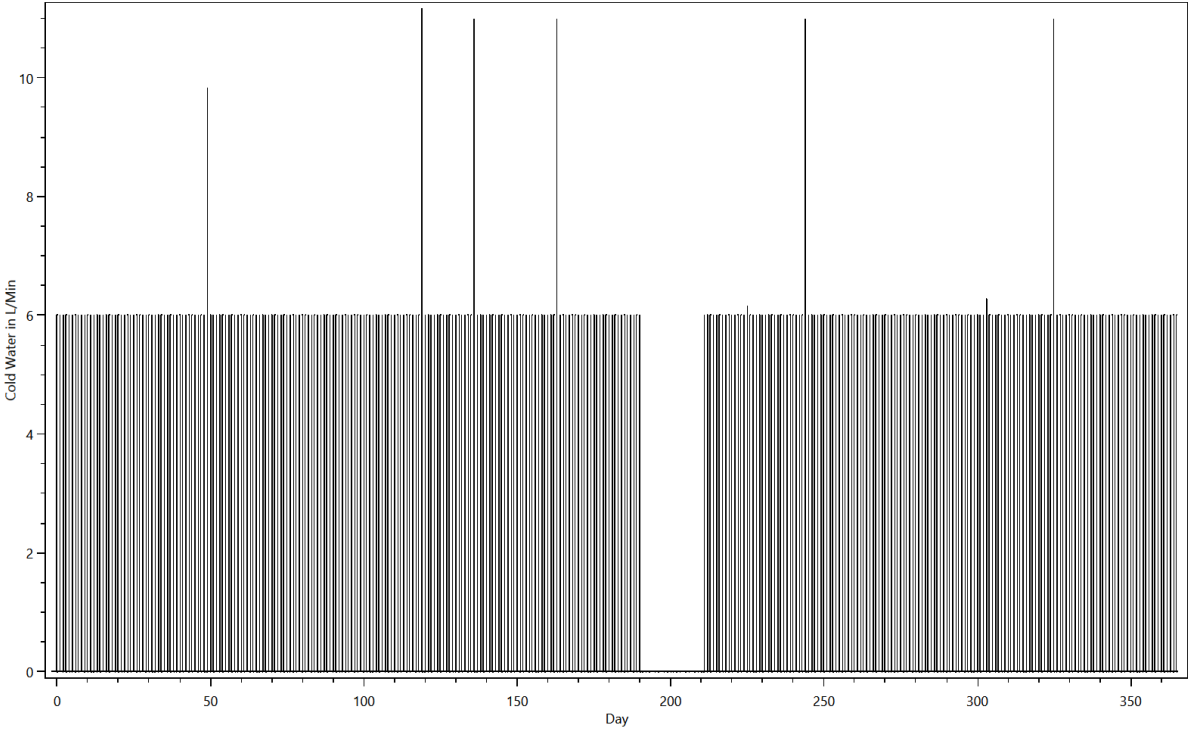
This is made from the files starting with: SumProfiles

This shows the energy use during the simulation.

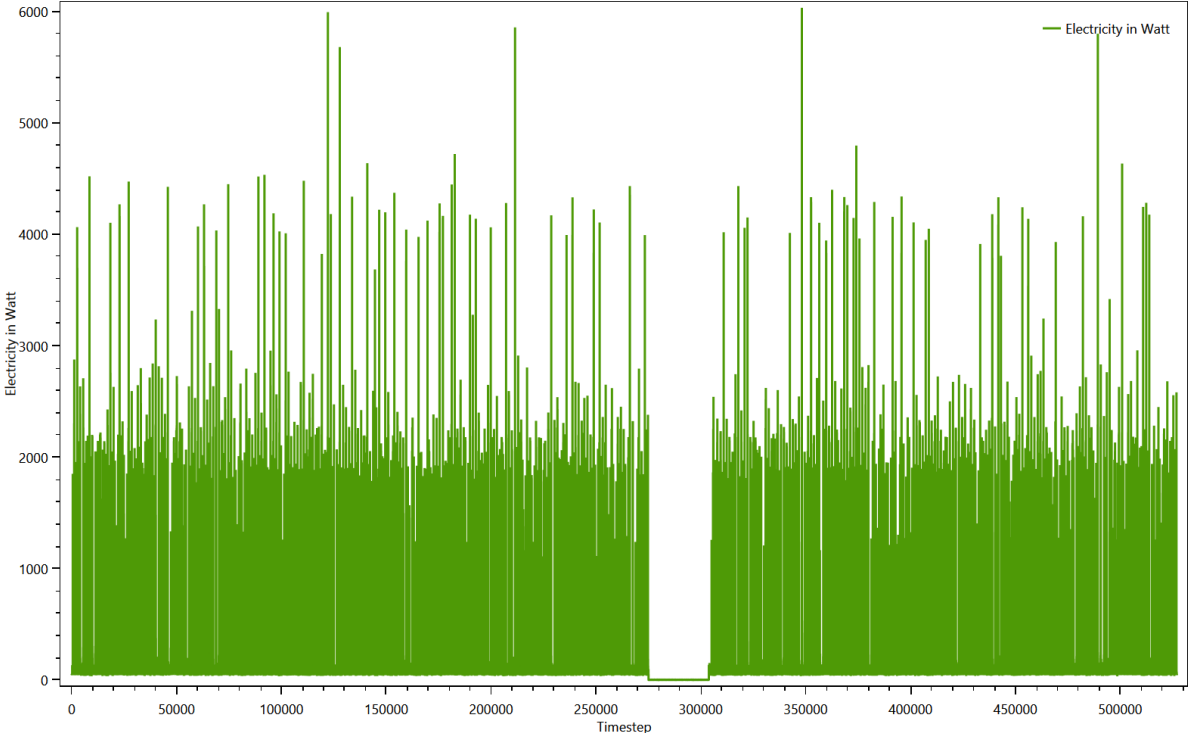
Summed up curve for Cold Water from SumProfiles.Cold Water.png



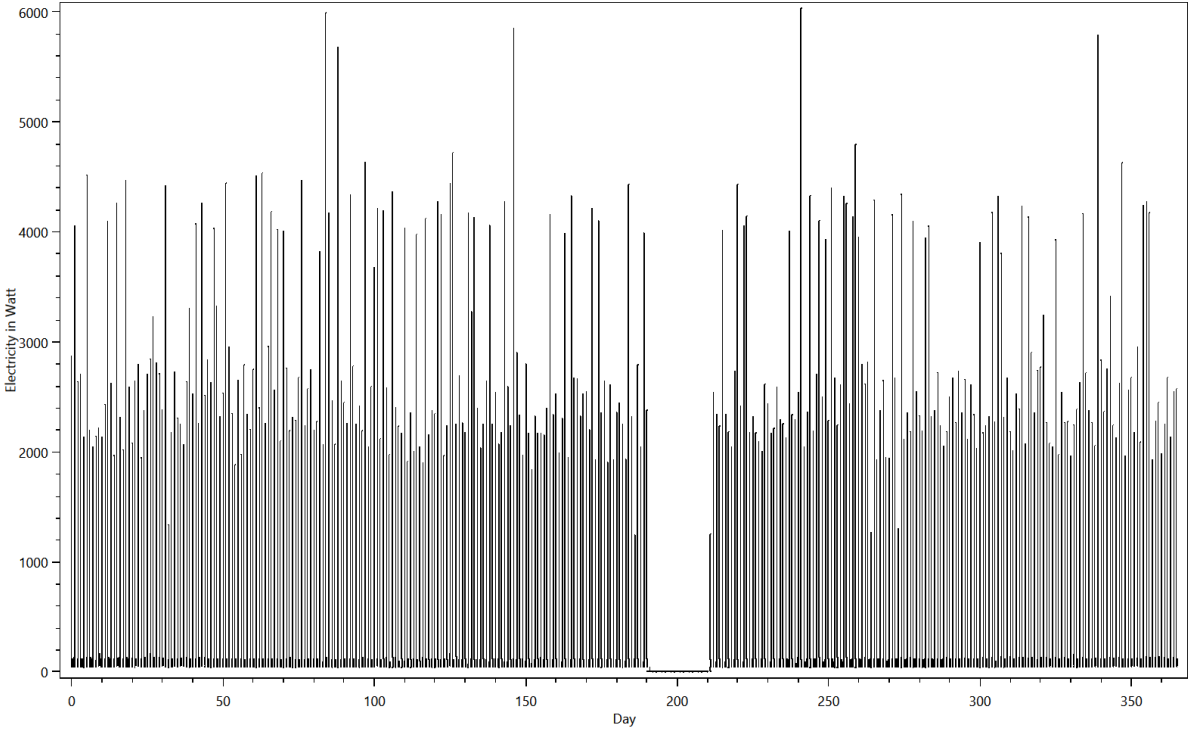
Summed up curve for Cold WaterMinMax from SumProfiles.Cold WaterMinMax.png



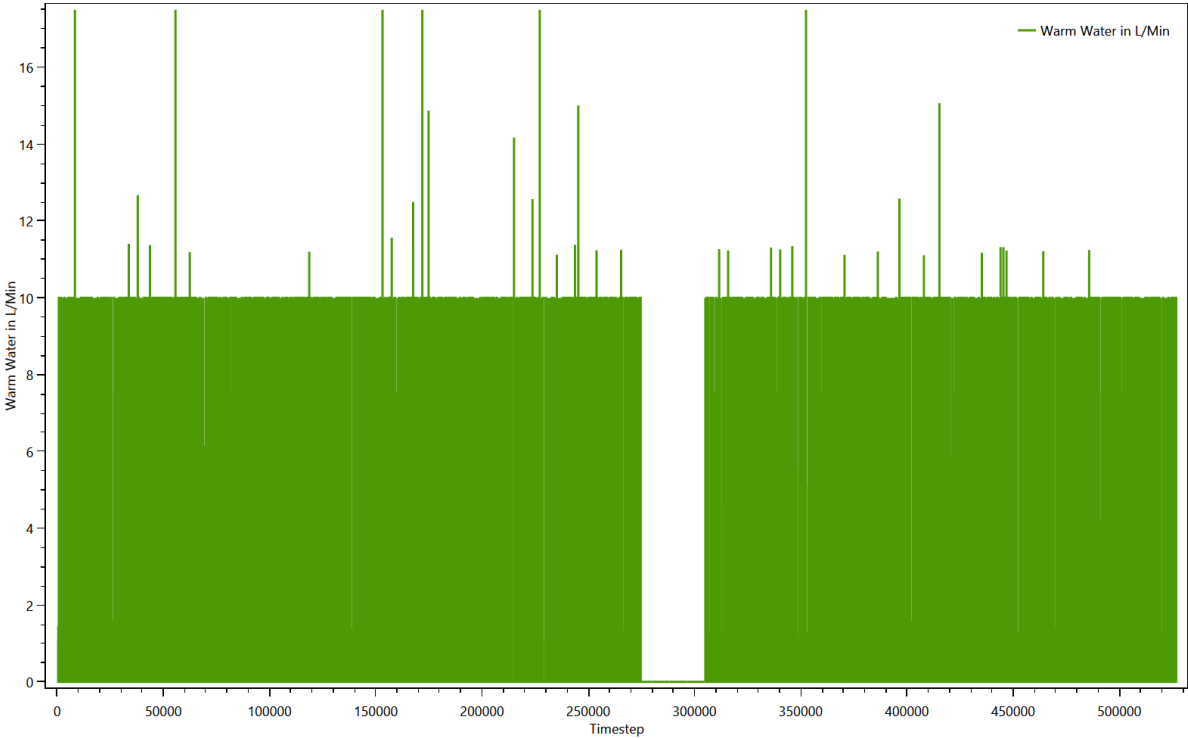
Summed up curve for Electricity from SumProfiles.Electricity.png



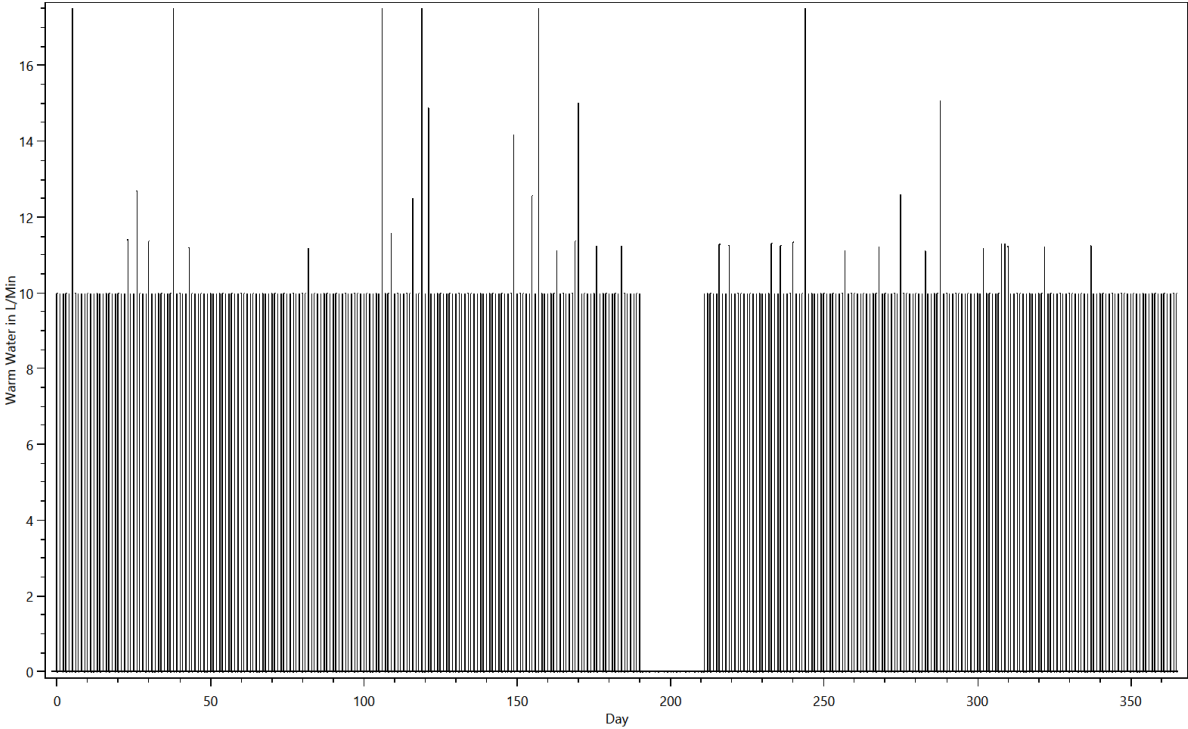
Summed up curve for ElectricityMinMax from SumProfiles.ElectricityMinMax..png



Summed up curve for Warm Water from SumProfiles.Warm Water.png



Summed up curve for Warm WaterMinMax from SumProfiles.Warm WaterMinMax.png



# Time Profiles

## This is made from the files starting with: Time Profiles

These files show which time profiles were used for each device and how often. The content looks like this:

TimeProfiles.HH0.CHR22 Single woman, 1 child, with work 0.txt

Device;Load Type;Profile;Number of Activations

Bathroom Light (60W);Electricity;Bath - light [Synthetic for Light Device];574

Bathroom Mirror Light 10 W (LED);Electricity;Bath - light [Synthetic for Light Device];574

Bathroom Sink 10L/min;Warm Water;0 h 01 min 100% [Synthetic];1654

Bathroom Sink 10L/min;Warm Water;0 h 01 min 50% [Synthetic];610

Bed 3 (Children);None;10 h 0 min 100% [Synthetic];348

Bed 8;None;08 h 0 min 100% [Synthetic];346

Bedroom Light (20W);Electricity;Bedroom - light [Synthetic for Light Device];169

Book;None;01 h 0 min 100% [Synthetic];56

CD/DVD Player / Philips DVDR 725 H;Electricity;01 h 30 min 100% [Synthetic];163

CD/DVD Player / Philips DVDR 725 H;Electricity;02 h 0 min 100% [Synthetic];176

CD/DVD Player / Philips DVDR 725 H;Electricity;Standby TV / Receiver 1 h 0 min 3% [Synthetic];8303

Canister Vacuum Cleaner / Siemens Z6.0 VSZ61260;Electricity;0 h 30 min 100% [Synthetic];28

Children Room Light Device (20W);Electricity;Children's room - light [Synthetic for Light Device];328

Cleanser;None;01 h 0 min 100% [Synthetic];46

Cloth Drying Rack;None;0 h 20 min 100% [Synthetic];143

Coffee Machine / Braun KF 580E;Electricity;0 h 10 min 100% [Synthetic];314

Couch;None;01 h 0 min 100% [Synthetic];136

Couch;None;02 h 0 min 100% [Synthetic];879

Dancing Shoes;None;03 h 0 min 100 % [Synthetic];46

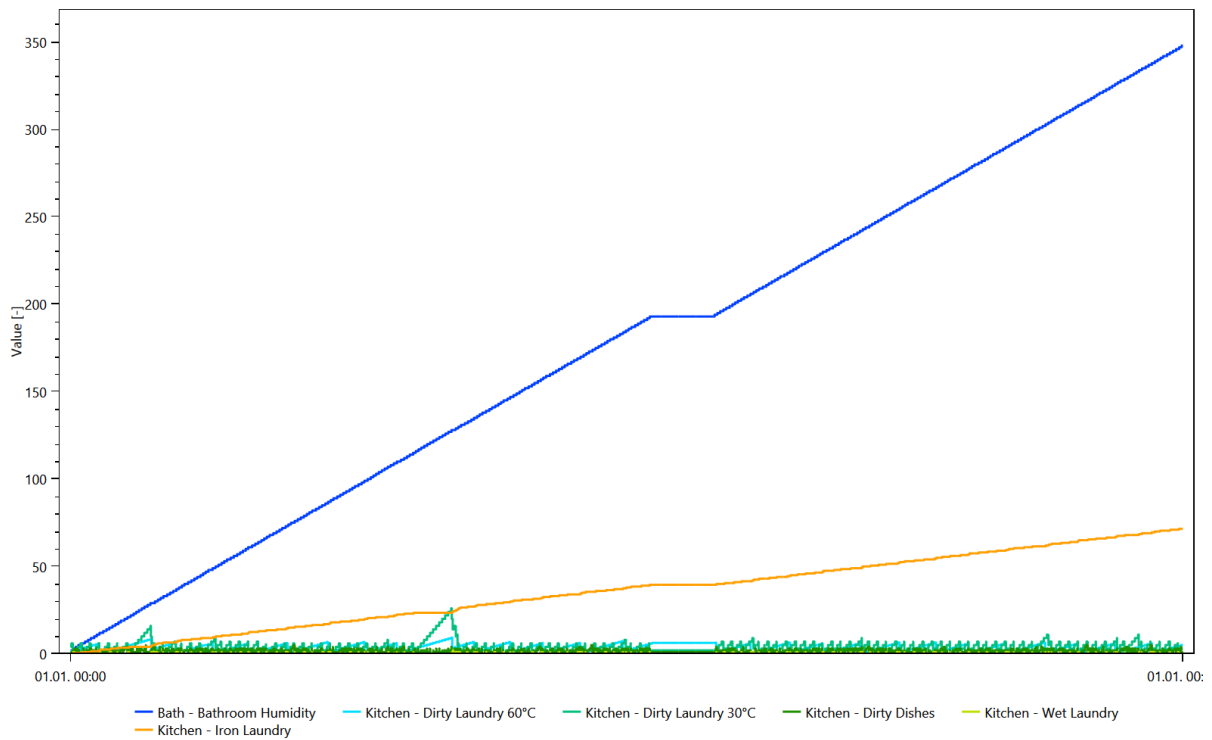


# Variables

This is made from the files starting with: Variablelogfile

The variables are used to keep track of things like dirty laundry, dirty dishes and the amount of laundry to iron. They are used to ensure that for example the dishwasher is only turned on if there are sufficient dirty dishes. One chart shows the first 25000 timesteps of the contents of all variables, the other shows the entire time span.

## Variables



## Variables

