

## Overview of the results of the household CHR58 Retired Couple, no work, no cooking 0

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

Energy Intensity: Random

Seed 3396

LoadProfileGenerator 5.8.0.16019

by Noah Pflugradt

<http://www.loadprofilegenerator.de>

Rendering date:16.12.2016 09:33:54

# Table of Contents

Totals.....	3
Persons.....	5
Activity Frequency Charts.....	6
Activity Distribution per Person.....	8
Time Use per Person per Affordance Per Person.....	10
Energy use per person per affordance.....	14
Time Use per Person Per Affordance according to different category definitions.....	16
Overview of the actions of each member of the household.....	18
Overview of the time of the use per load type per device.....	20
Energy/Resource use distribution per load type per affordance.....	22
Energy use for each load type for each device.....	27
Duration curve for each device for each load type.....	31
Duration curve for each load type.....	33
Grouped energy use for each load type for each device.....	35
Example of the device profiles for each load type.....	39
Overview of the time and power of the use per load type per device.....	53
Energy use per load type during different seasons, split by weekday/saturday/sunday.....	55
Location Distribution per Person.....	57
Actions.csv.....	59
Sum Profiles.....	60
Time Profiles.....	64
Variables.....	65

## Totals

### Totals for each Loadtype

Load Type	Value	Unit
Cold Water	23733.23	L
Electricity	2087.80	kWh
Warm Water	86345.00	L

### Totals for each Loadtype per Day

Load Type	Value	Unit
Cold Water	64.84	L
Electricity	5.70	kWh
Warm Water	235.92	L

### Minimum and Maximum for each Loadtype

Household	Minimum	Maximum	Unit
Cold Water	0.00	16.85	L/Min
Electricity	-189.43	7314.24	Watt
Warm Water	0.00	25.00	L/Min

### Totals for each Loadtype per Person

Load Type	Value	Unit
Cold Water	11866.61	L
Electricity	1043.90	kWh

Warm Water	43172.50	L
------------	----------	---

**Totals for each Loadtype per Person per Day**

Load Type	Value	Unit
Cold Water	32.42	L
Electricity	2.85	kWh
Warm Water	117.96	L

## Persons

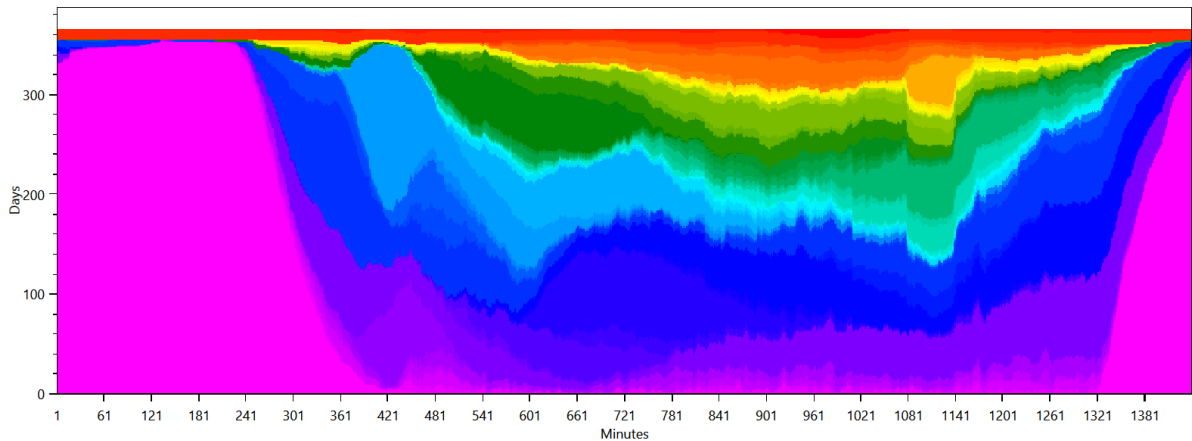
- HH0
  - CHR58 Ema (68/Female)(68/Female)
  - CHR58 Nil (71/Male)(71/Male)

# Activity Frequency Charts

This is made from the files starting with: ActivityFrequenciesPerMinute

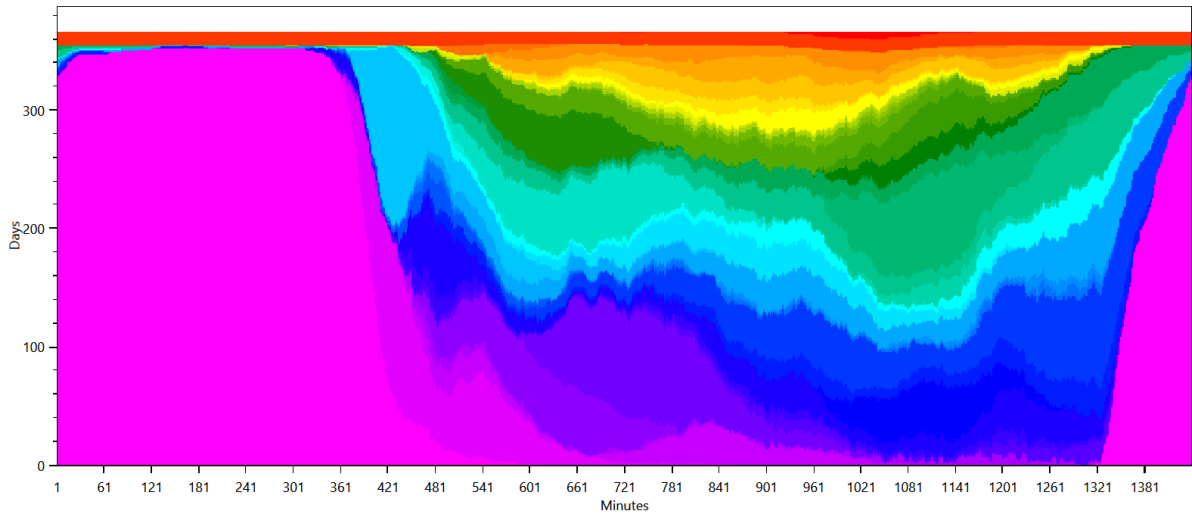
These charts show an ordered distribution of times of the activities of each person. This helps with judging quickly if a person is sleeping correctly and if they are going to work regularly.

HH0 - CHR58 Ema (68 Female)



- sleep bed 02 (06 h)
- go to the toilet
- play board games (1 h)
- rest for 10 min
- take a shower without hair washing (women)
- eat a cooked meal (interrupting) (eat breakfast (1 h))
- send email from the laptop (2 h)
- do laundry at 30°C (by variable)
- go together to the doctor (go to doctor)
- hang up laundry outside
- take a nap
- bake a cake
- read a book on the couch only 9:00 to 22:00
- go to community college together (go to community college)
- read a book on the couch all the time
- read a magazine
- get ready in the morning (women)
- run the dishwasher (triggered)
- take a shower with hair washing (women) (20 min hair drying)
- eat breakfast (1 h)
- watch the grandchildren
- join someone for a visit to the children (visit children (6 h))
- sweep the floors
- watch TV with someone (watch a movie for 1 h 30 min)
- dust the house
- watch TV with someone (watch TV (1 h))
- vacuum the household
- go to a dancing class
- take a shower with hair washing (women) (5 min hair drying)
- iron Clothes
- go to community college
- clean the bath
- watch TV with someone (watch sports on TV with SAT Receiver (2 h))
- watch TV with someone (watch a movie for 2 h)
- eat a delivered meal on wheels dinner
- go to doctor
- read a book (1 h)
- take a Saturday day trip (10 h)
- watch TV with someone (watch the news)
- do laundry at 60°C (by variable)
- iron and watch TV with Sat Receiver (1 h)
- visit children (6 h)
- dance together (go to a dancing class)
- clean the windows
- make and drink tea (15 min)
- watch the news
- read a newspaper for 30min
- watch TV (1 h)
- watch sports on TV with SAT Receiver (2 h)
- watch a movie for 1 h 30 min
- eat a cooked meal (interrupting) (eat a delivered meal on wheels dinner)
- watch TV series on weekdays 18:00
- eat a delivered meal on wheels lunch
- take a trip together (take a Saturday day trip (10 h))
- go for walk (1 h)
- do garden work every day
- join someone for a walk (go for walk (1 h))
- taking a vacation
- watch a movie for 2 h
- take nap on the weekend (2 h)

# HH0 - CHR58 Nil (71 Male)



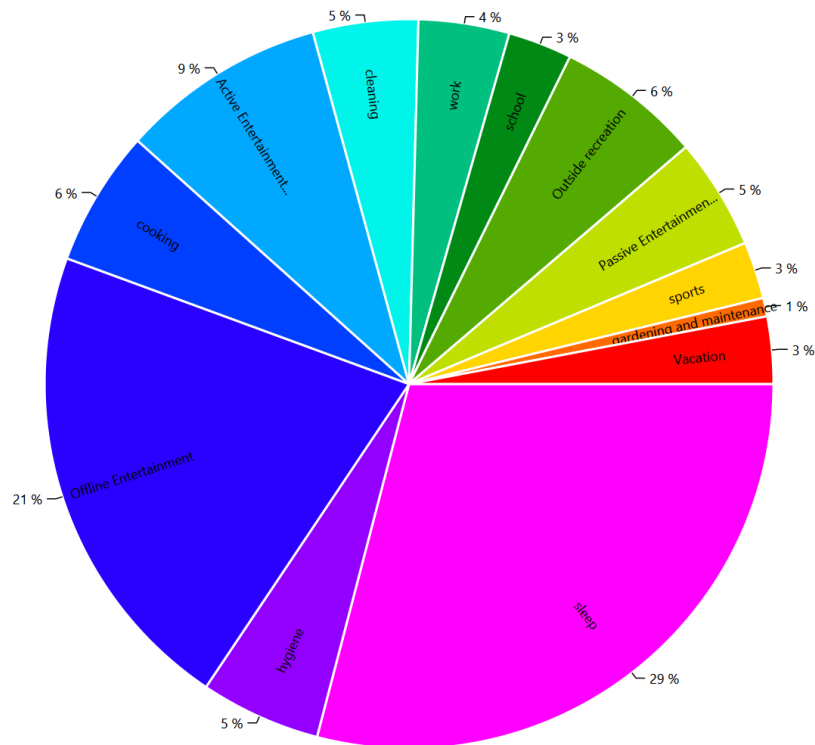
- sleep bed 08 (08 h)
- eat breakfast (1 h)
- go shopping for food in the supermarket (1.5 h)
- go to the toilet
- go to doctor
- take a nap
- play board games (1 h)
- rest for 10 min
- read a newspaper for 30min
- go to community college
- watch TV (1 h)
- read a book on the couch only 9:00 to 22:00
- get ready in the morning (men)
- take a shower (men)
- watch the news
- read a book on the couch all the time
- eat a cooked meal (interrupting) (eat breakfast (1 h))
- visit children (6 h)
- watch a movie for 1 h 30 min
- shovel snow
- watch the grandchildren
- dance together (go to a dancing class)
- watch sports on TV with SAT Receiver (2 h)
- do volunteer work
- watch a movie for 2 h
- run the dishwasher (triggered)
- eat a cooked meal (interrupting) (eat a delivered meal on wheels dinner)
- go to a dancing class
- go together to the doctor (go to doctor)
- go to community college together (go to community college)
- take a saturday day trip (10 h)
- join someone for a visit to the children (visit children (6 h))
- eat a delivered meal on wheels dinner
- take a trip together (take a saturday day trip (10 h))
- make and drink tea (15 min)
- read a magazine
- join someone for a walk (go for walk (1 h))
- do garden work every day
- relax in the garden 2
- relax in the garden
- go for walk (1 h)
- mow the lawn on saturday above 15°C
- read a book (1 h)
- taking a vacation
- eat a delivered meal on wheels lunch
- take nap on the weekend (2 h)

# Activity Distribution per Person

This is made from the files starting with: ActivityPercentage

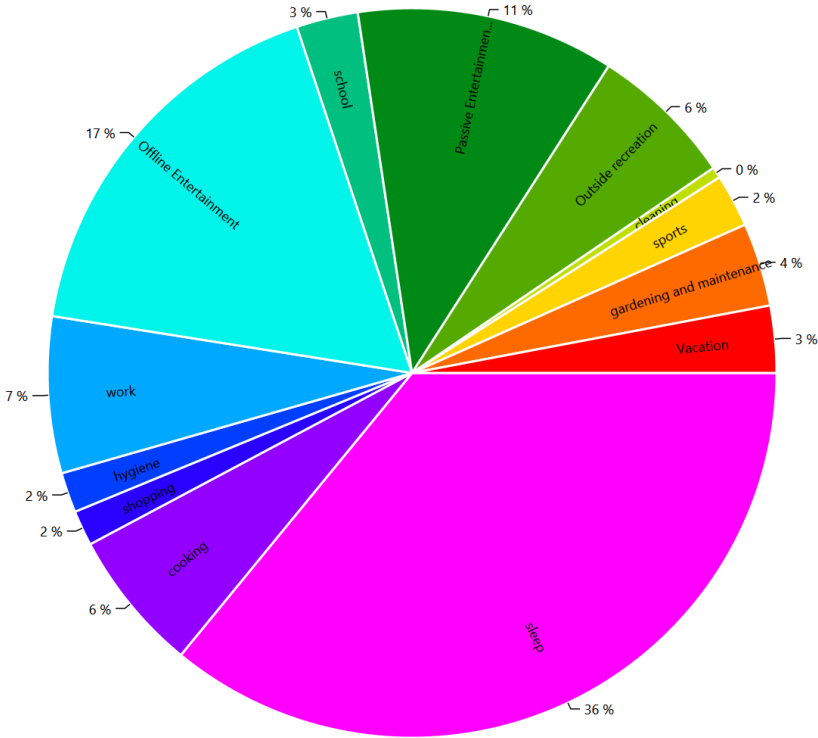
This shows the distribution of the activities, grouped by the affordance AffordanceToCategories.

HH0 - CHR58 Ema (68 Female)





HH0 - CHR58 Nil (71 Male)

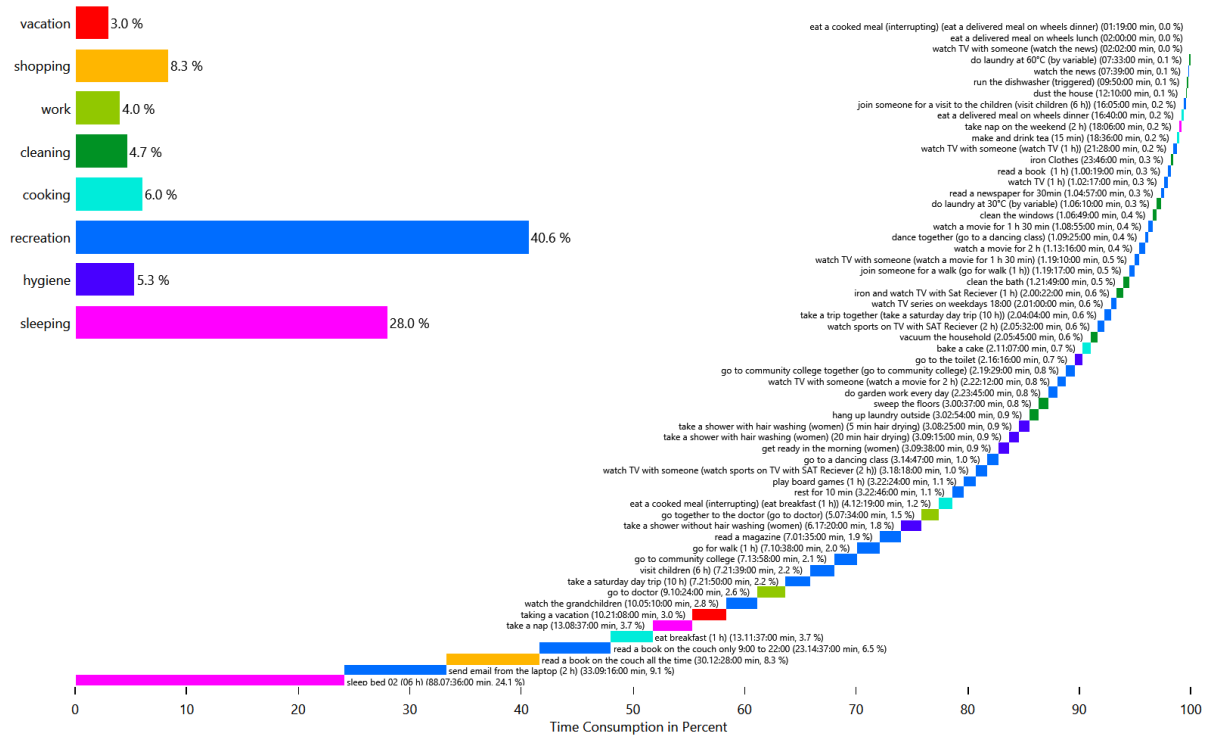


# Time Use per Person per Affordance Per Person

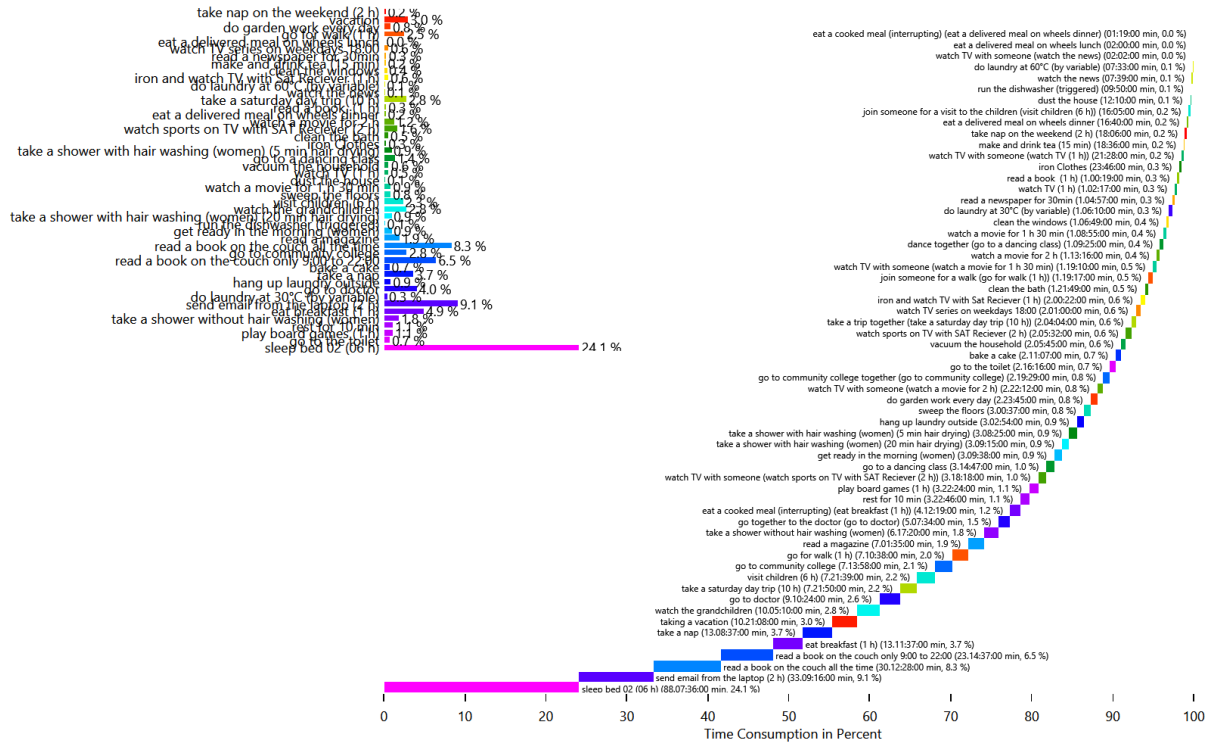
This is made from the files starting with: AffordanceTimeUse

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.

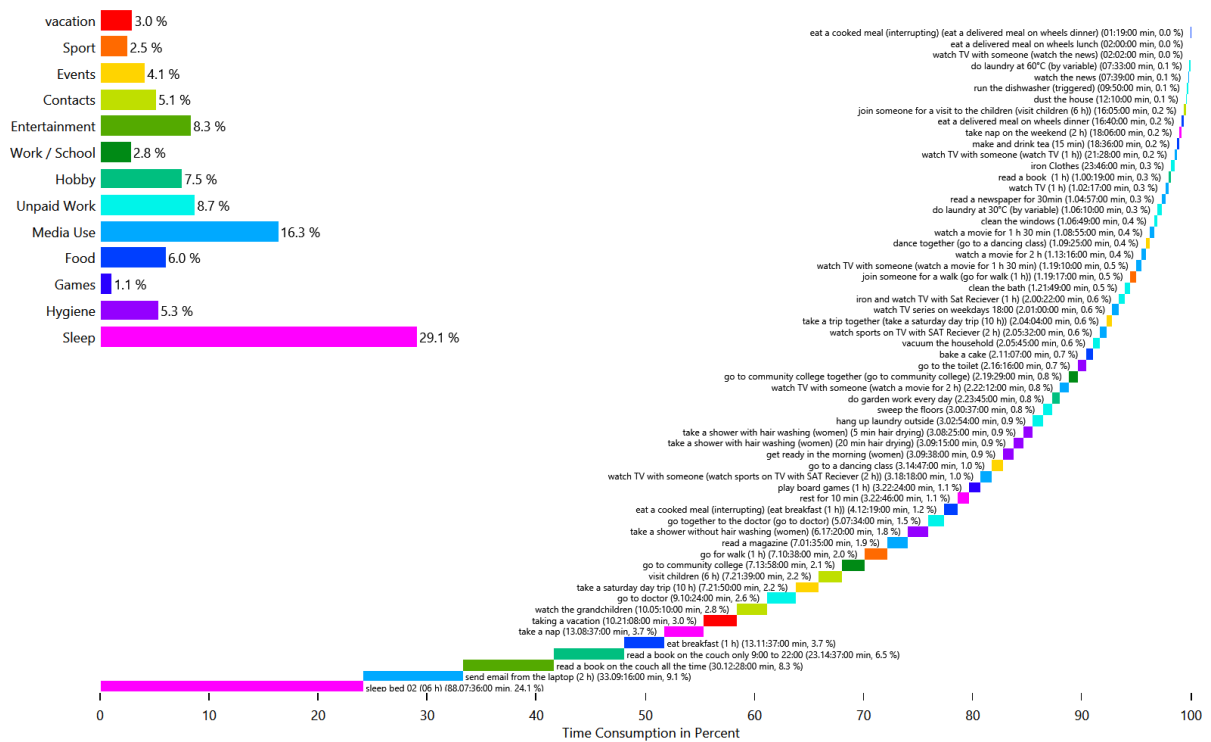
## HH0 - CHR58 Ema (68 Female)



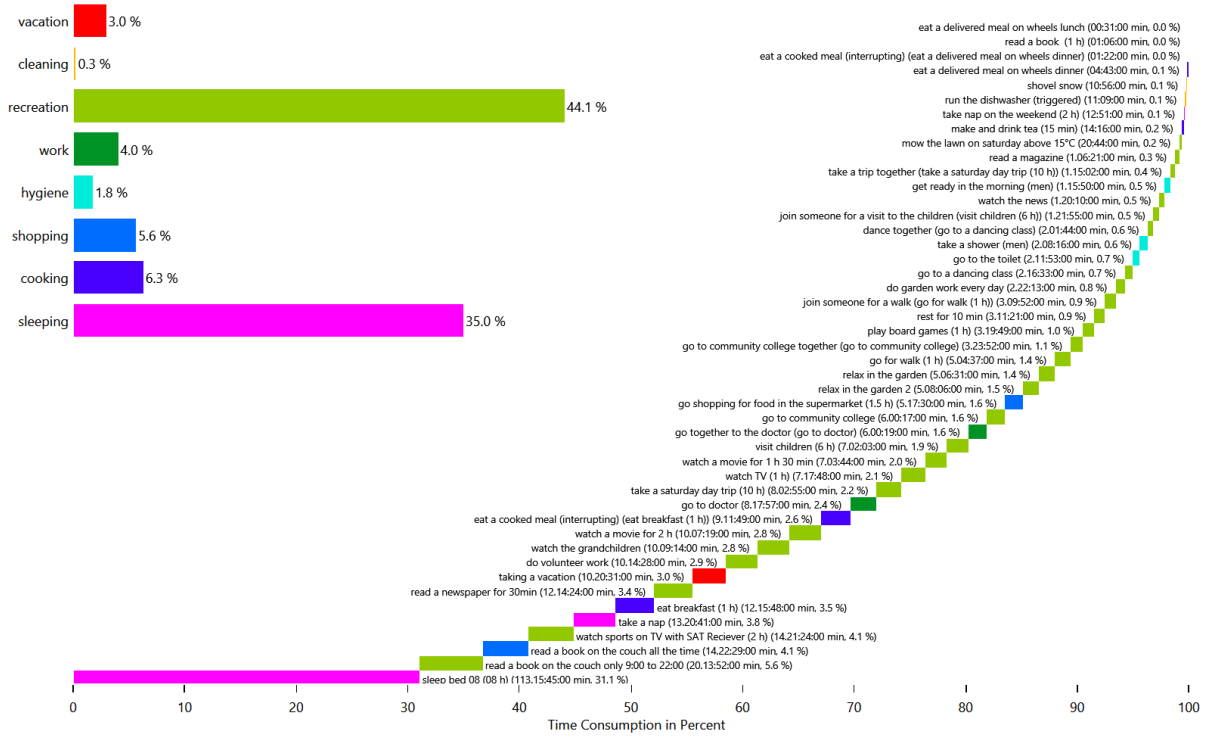
# HH0 - CHR58 Ema (68 Female)



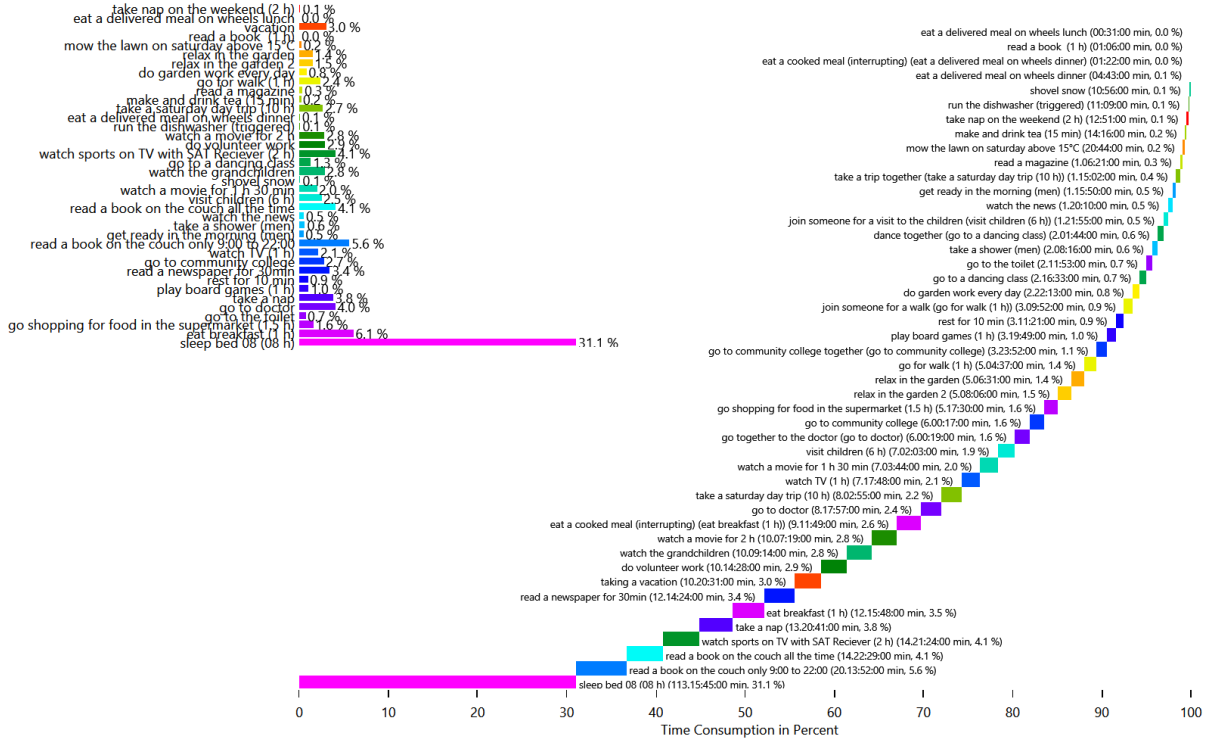
# HH0 - CHR58 Ema (68 Female)



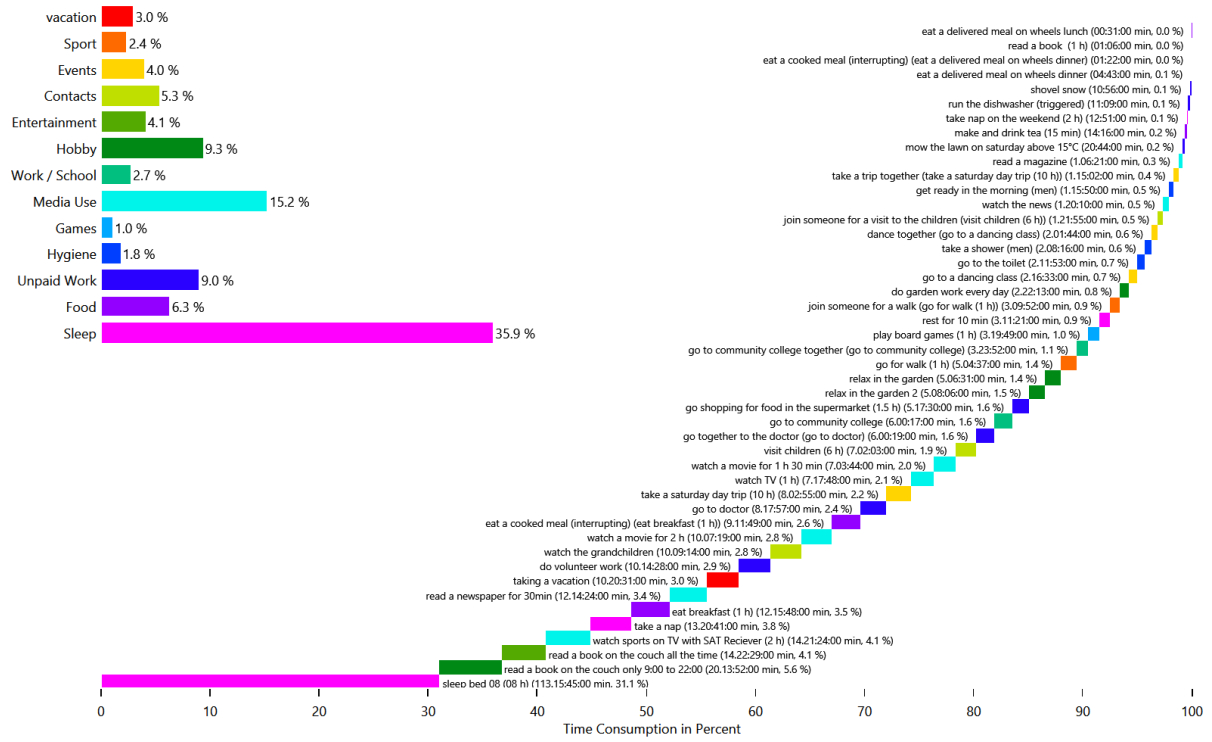
# HH0 - CHR58 Nil (71 Male)



# HH0 - CHR58 Nil (71 Male)



# HH0 - CHR58 Nil (71 Male)

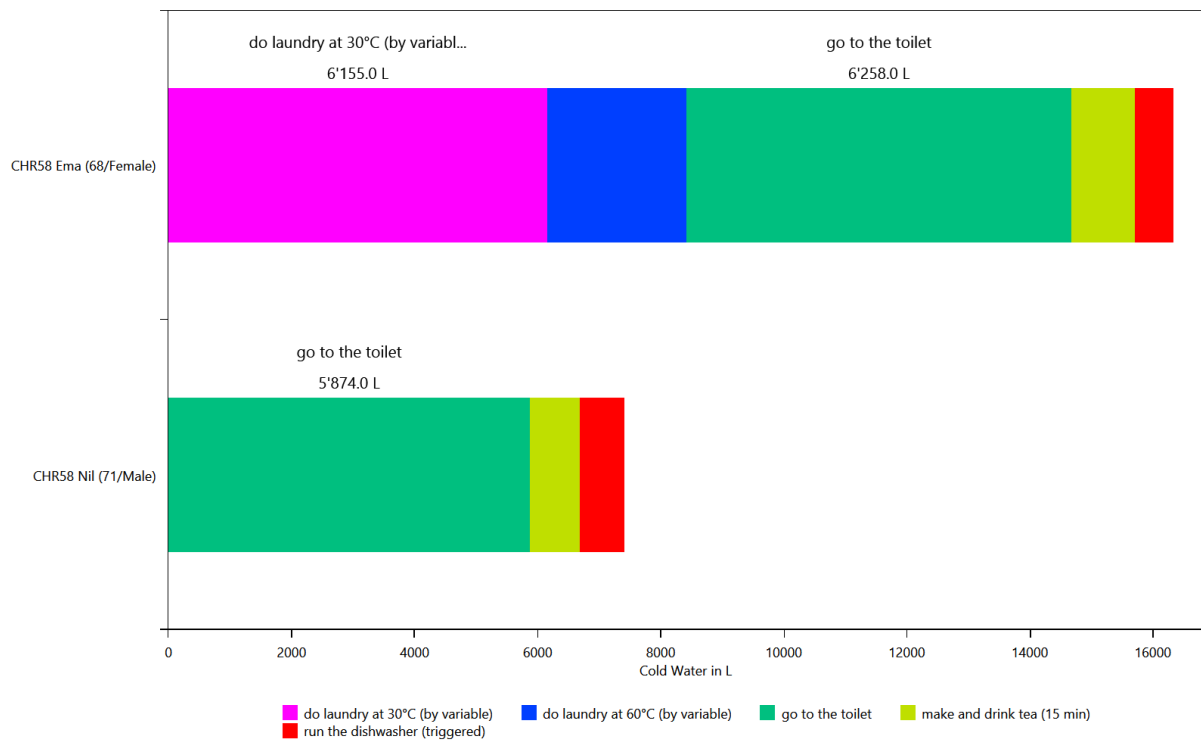


# Energy use per person per affordance

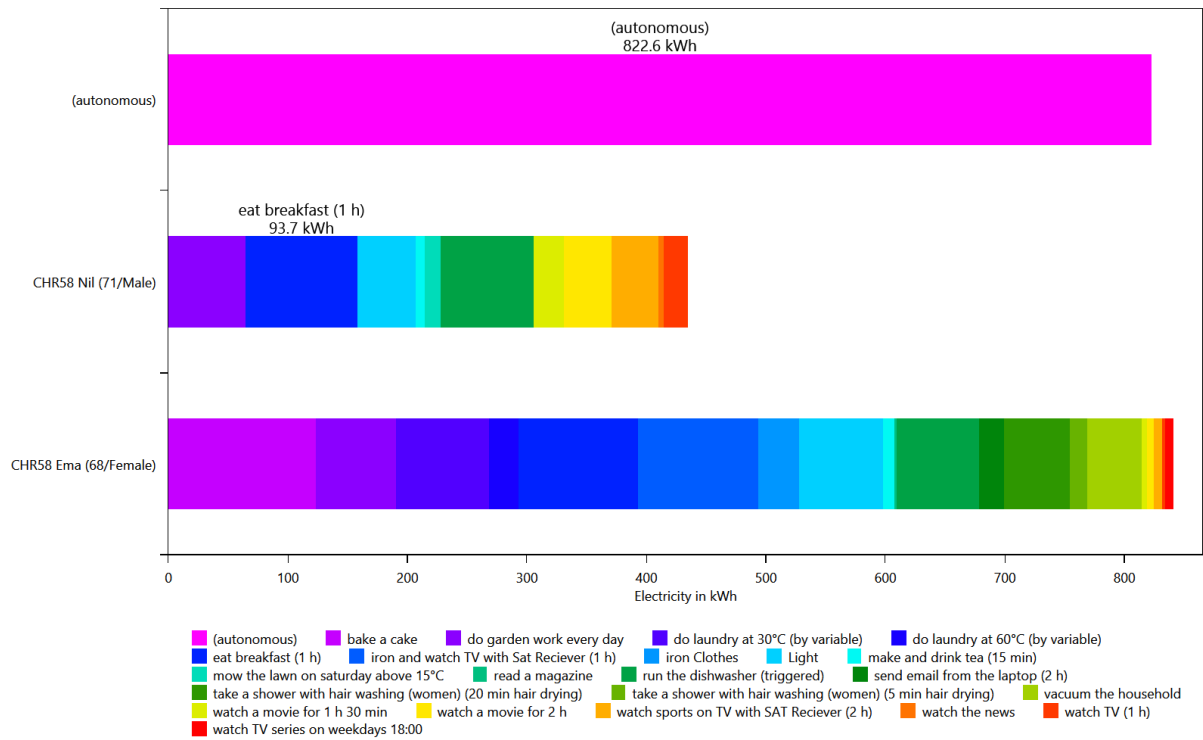
This is made from the files starting with: **AffordanceEnergyUsePerPerson**

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.

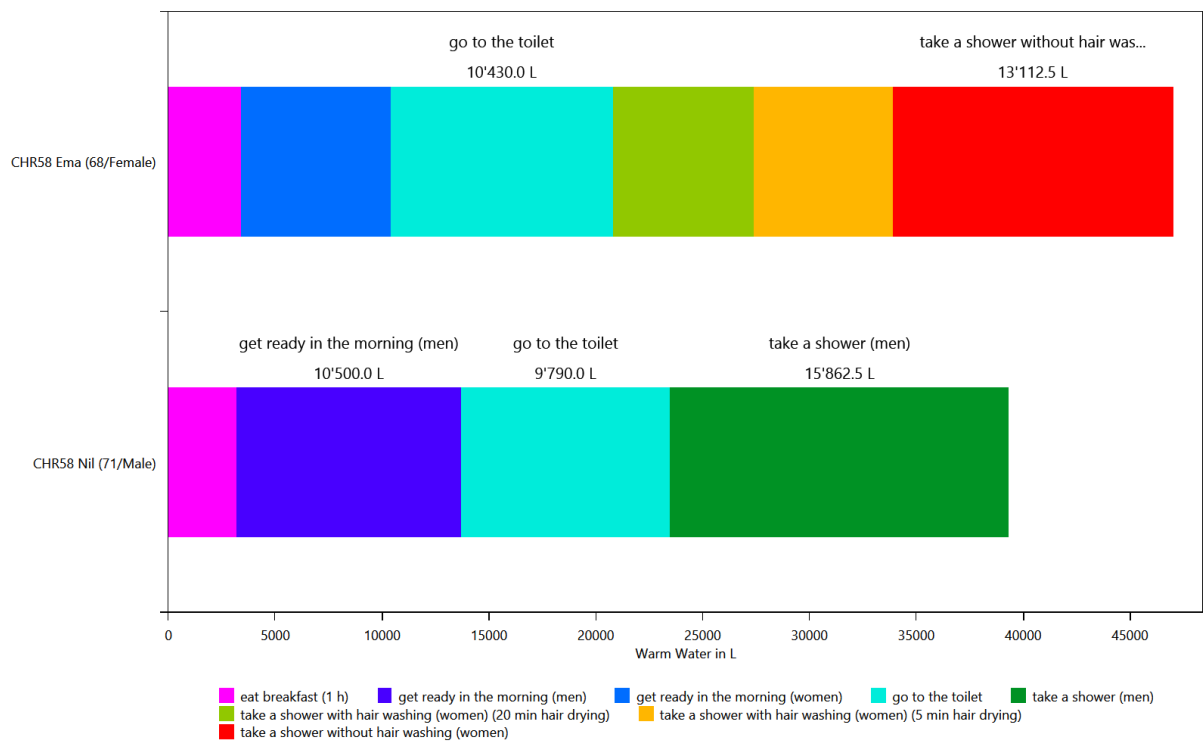
## HH0 - Cold Water



## HH0 - Electricity



## HH0 - Warm Water

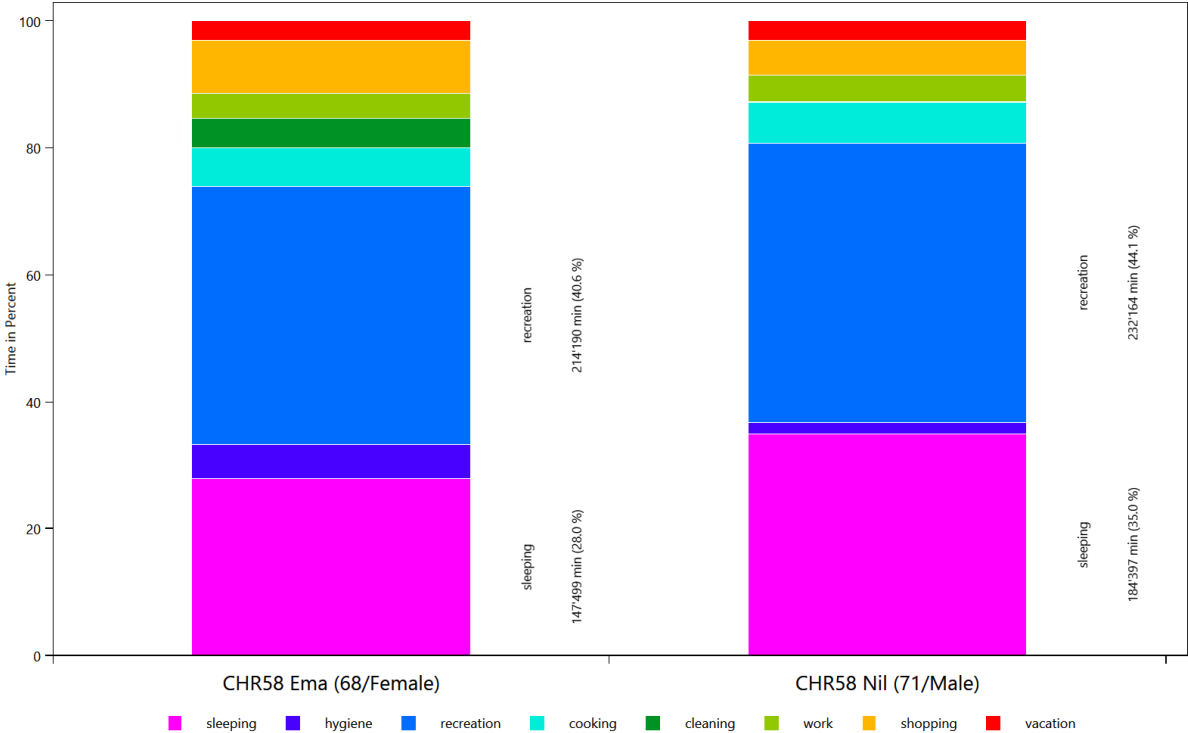


# Time Use per Person Per Affordance according to different category definitions

This is made from the files starting with: AffordanceTaggingSet

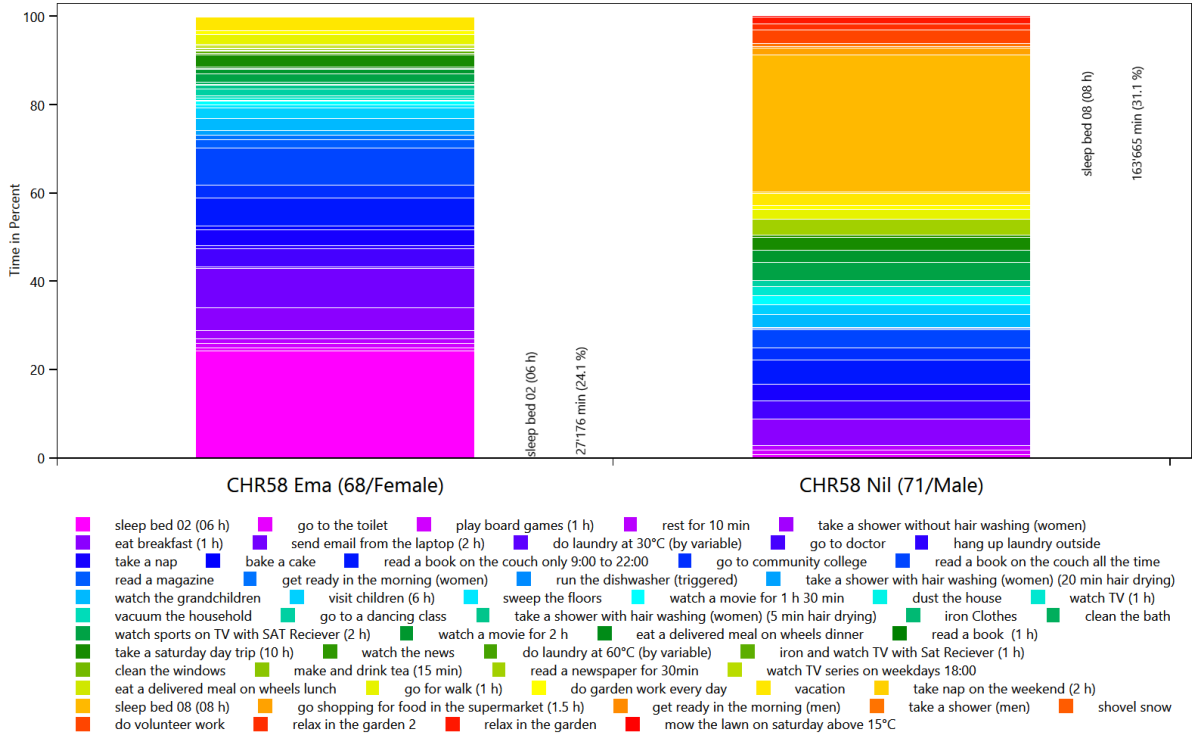
These charts show how the people in the household use their time. To help with analysis, the activities can be grouped by various criteria. This is done with the affordance tagging sets in the LPG.

## Basic Tagging - HH0

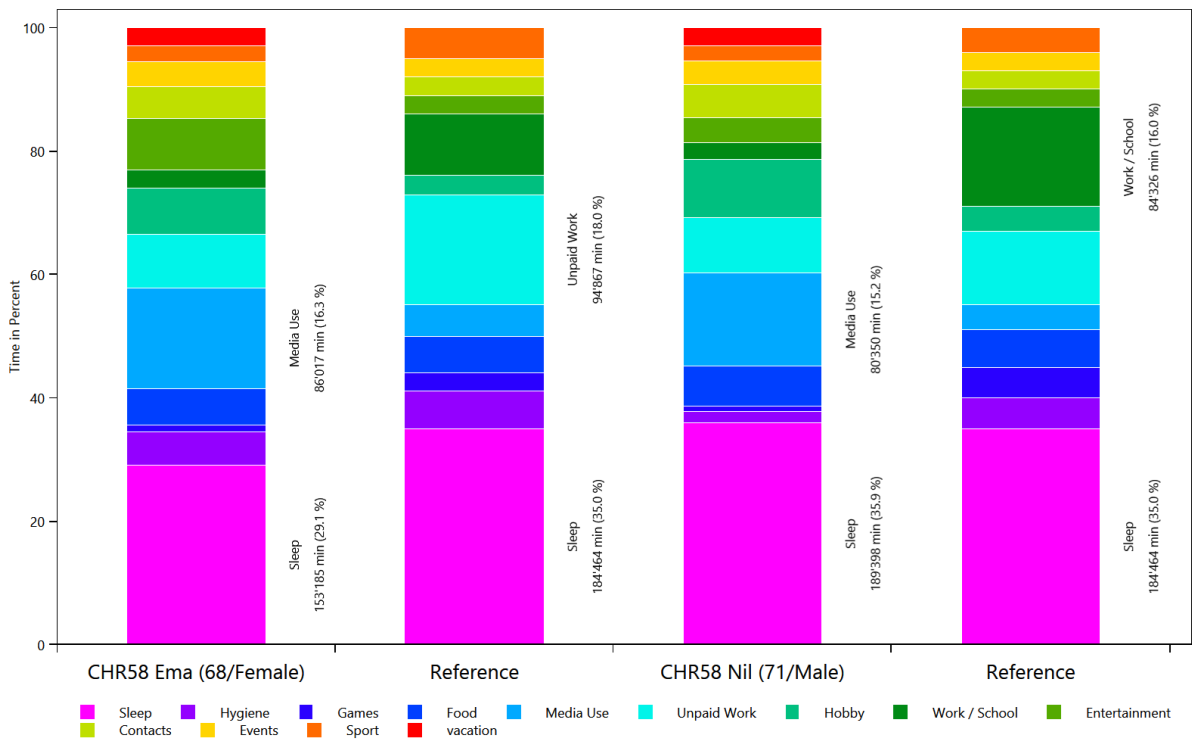




## Tagging Set For Planning - HH0



## Wo bleibt die Zeit - HH0

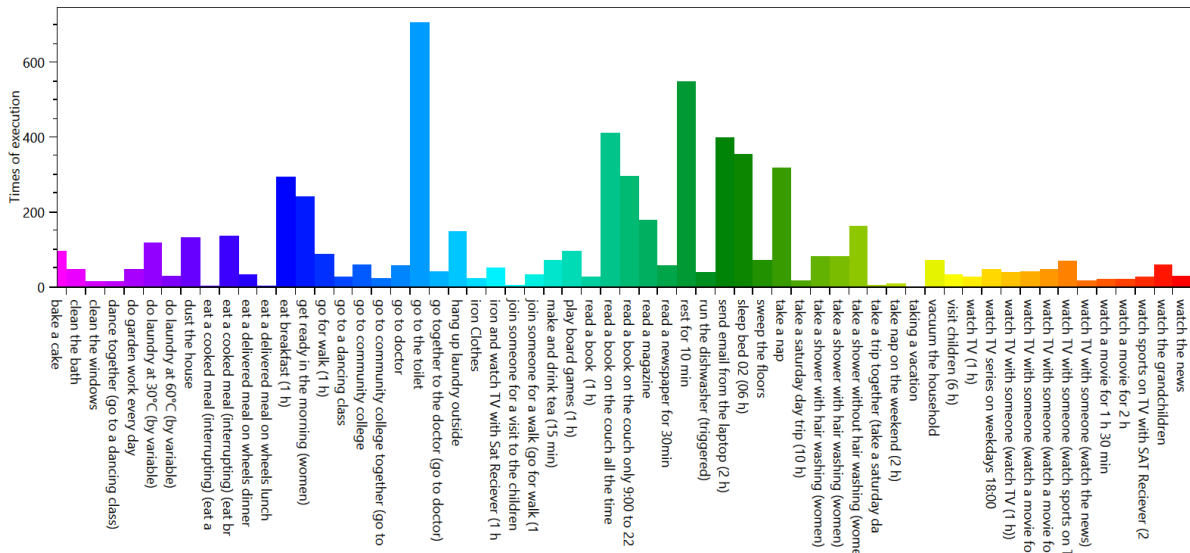


# Overview of the actions of each member of the household

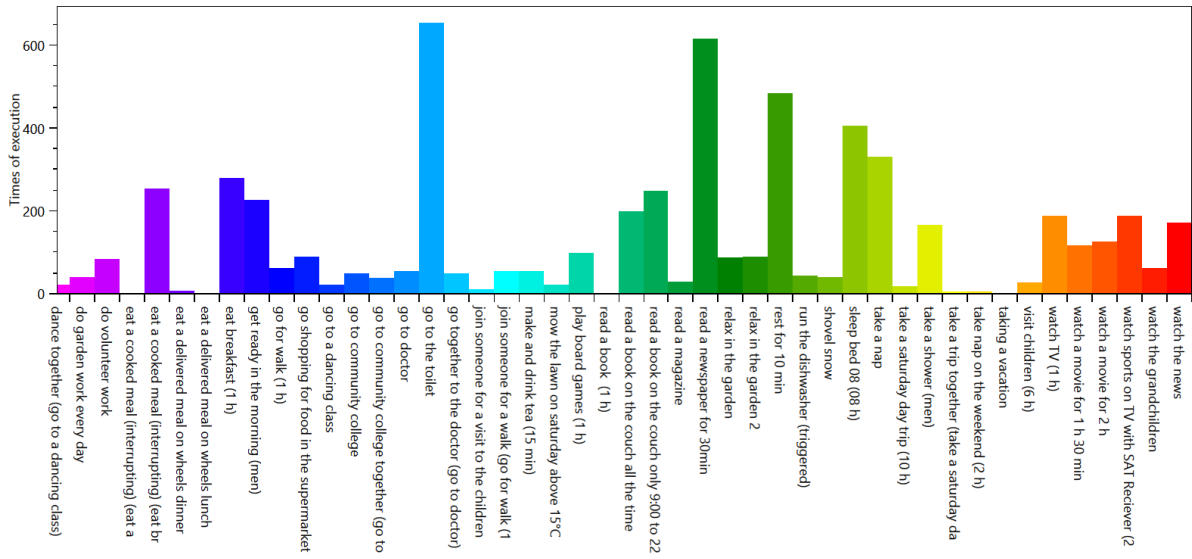
This is made from the files starting with: ExecutedActionsOverviewCount

These charts show how often each affordance was executed.

HH0 - CHR58 Ema (68 Female)



# HH0 - CHR58 Nil (71 Male)

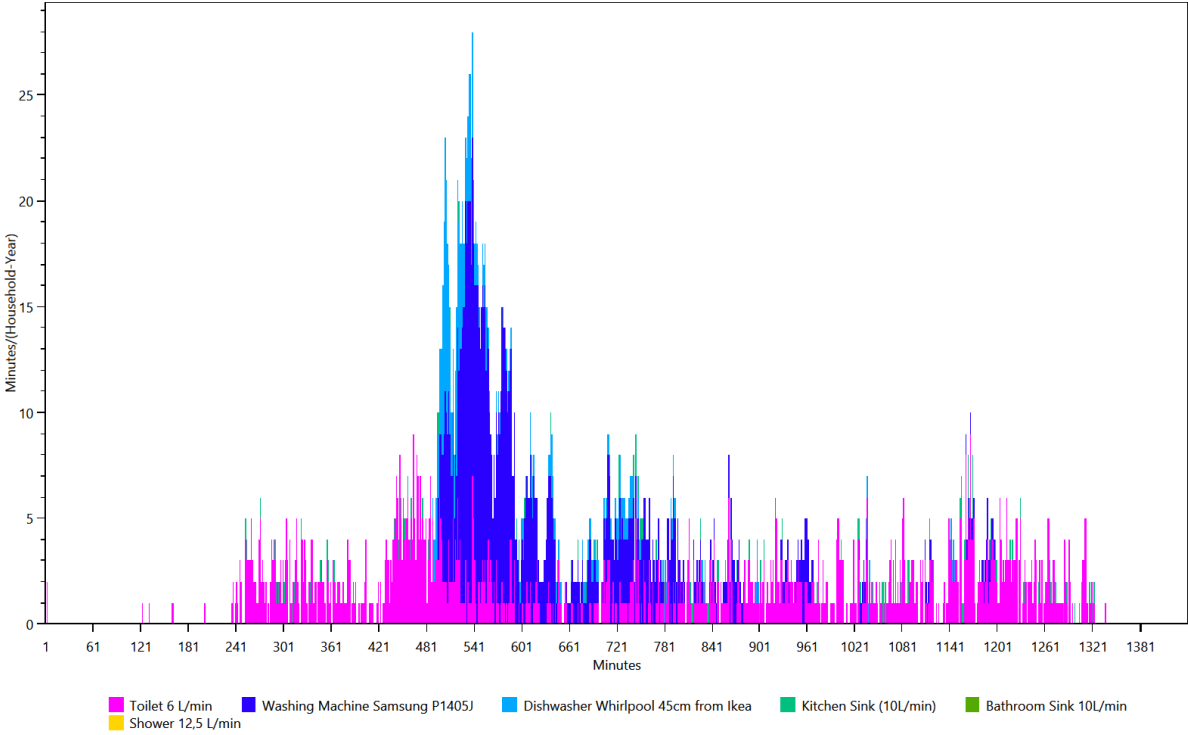


# Overview of the time of the use per load type per device

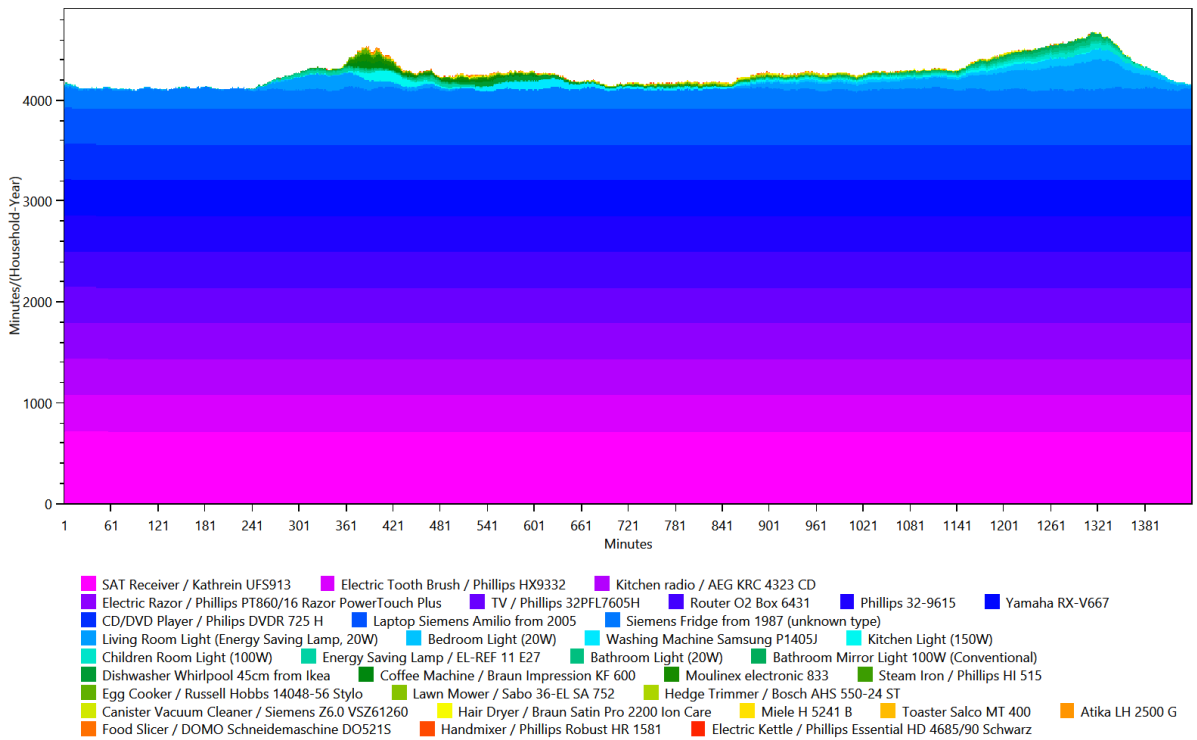
This is made from the files starting with: TimeOfUseEnergyProfiles

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

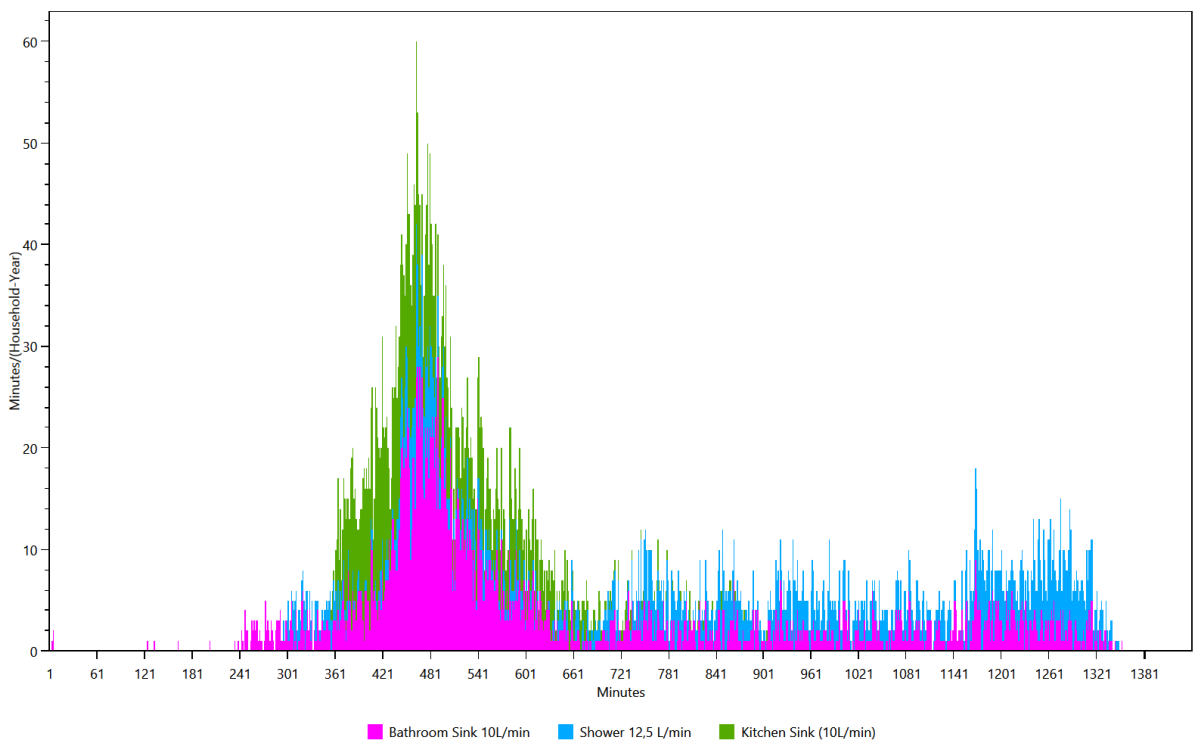
## Cold Water



## Electricity



## Warm Water

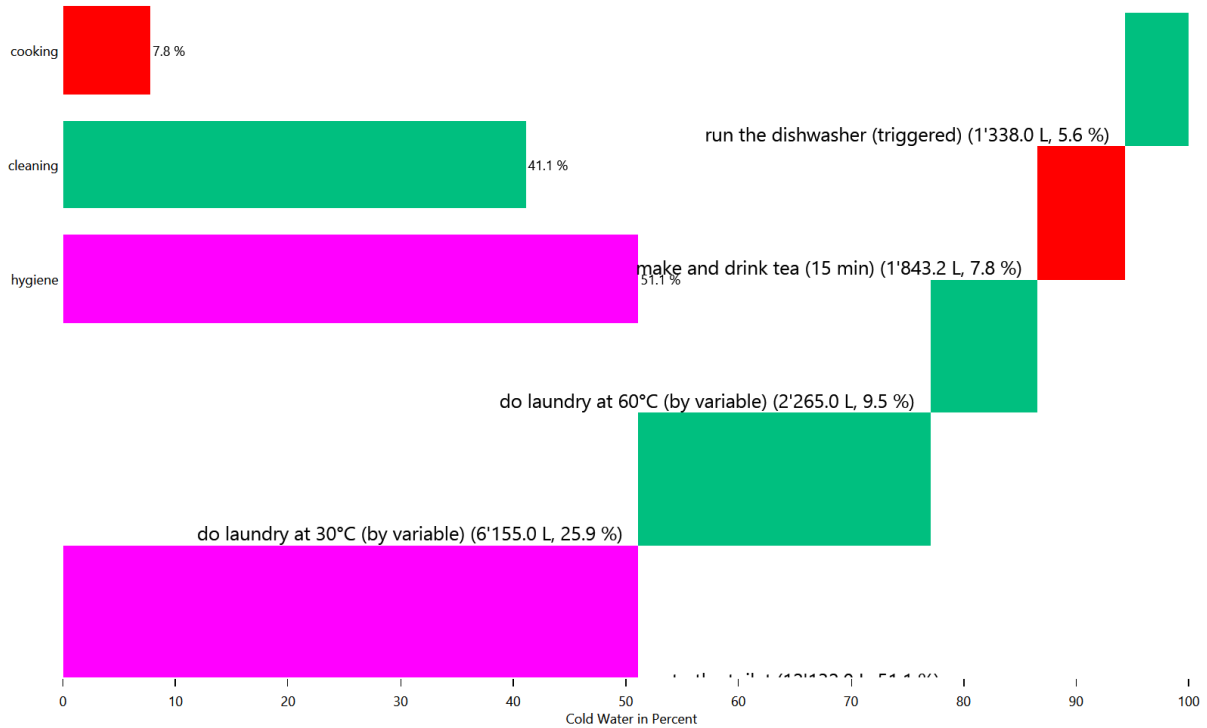


# Energy/Resource use distribution per load type per affordance

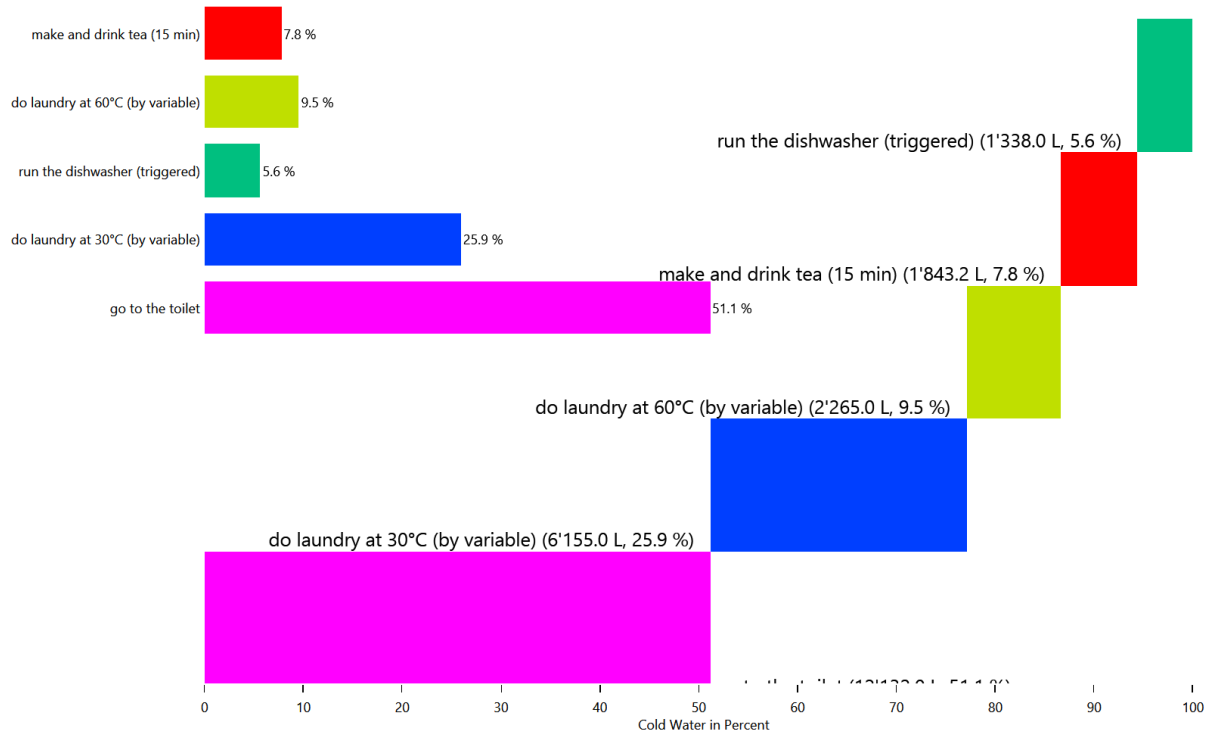
This is made from the files starting with: AffordanceEnergyUse

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

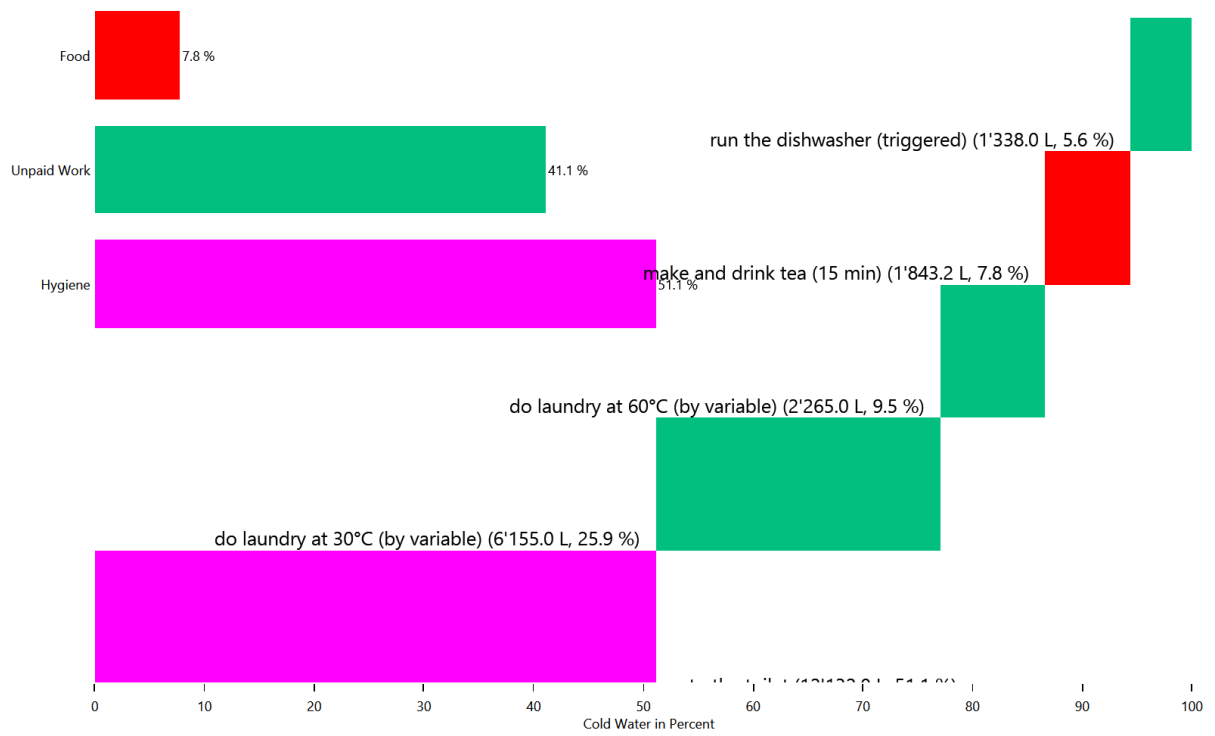
## HH0 - Cold Water



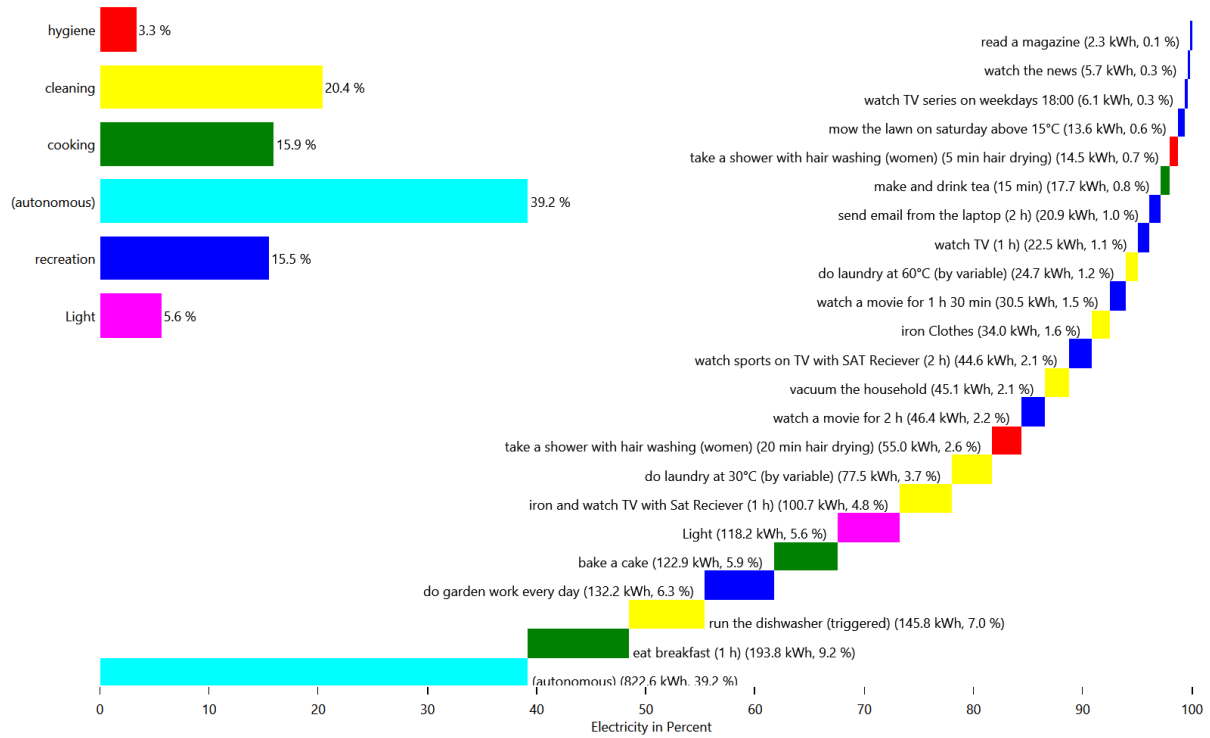
## HH0 - Cold Water



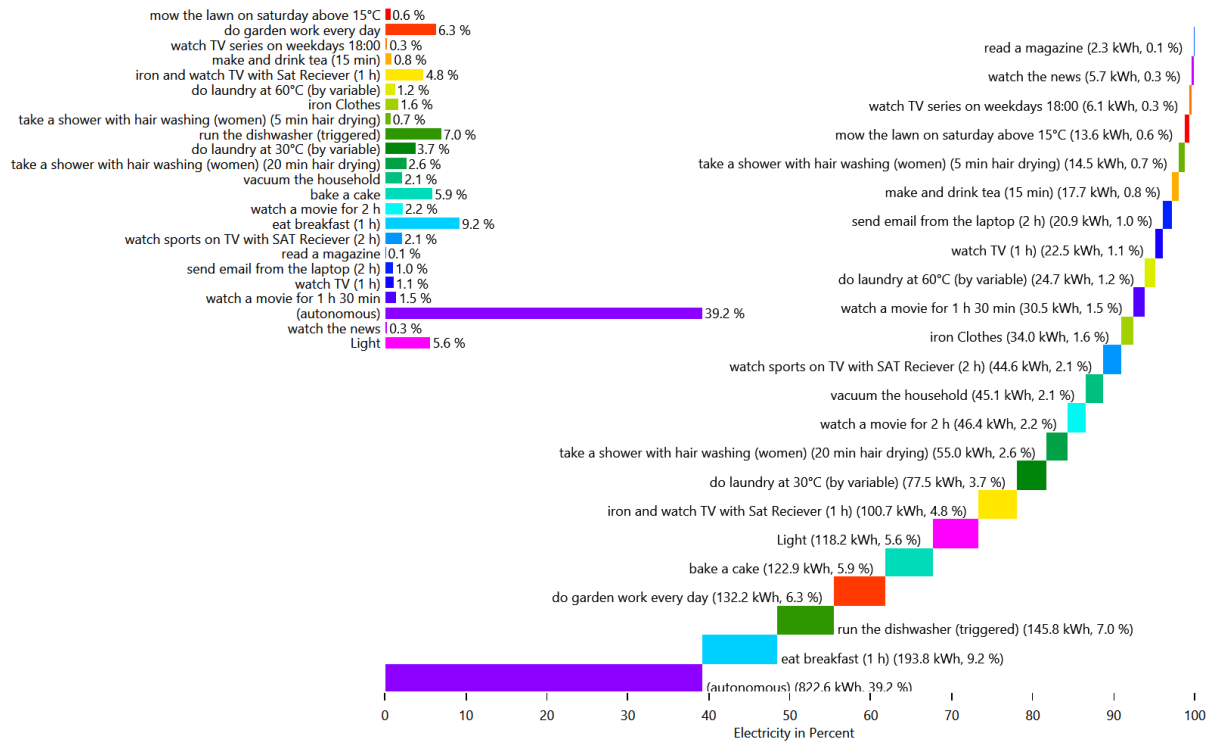
## HH0 - Cold Water



# HH0 - Electricity

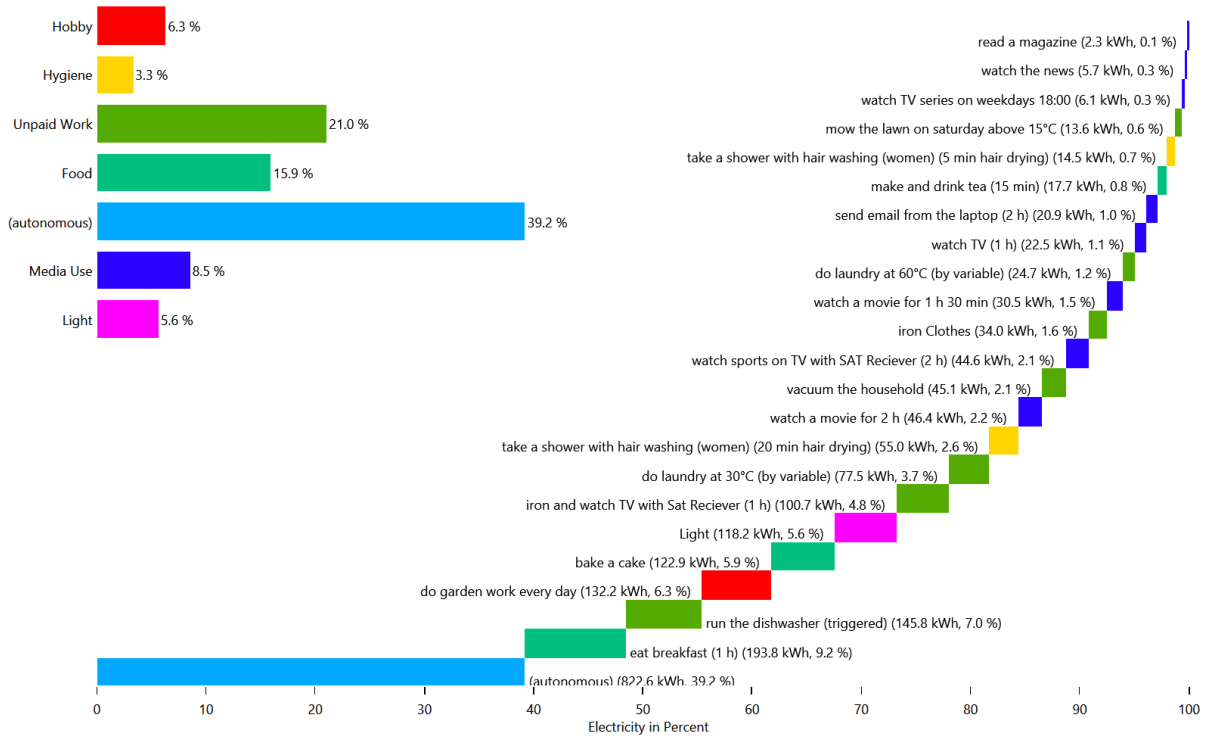


# HH0 - Electricity

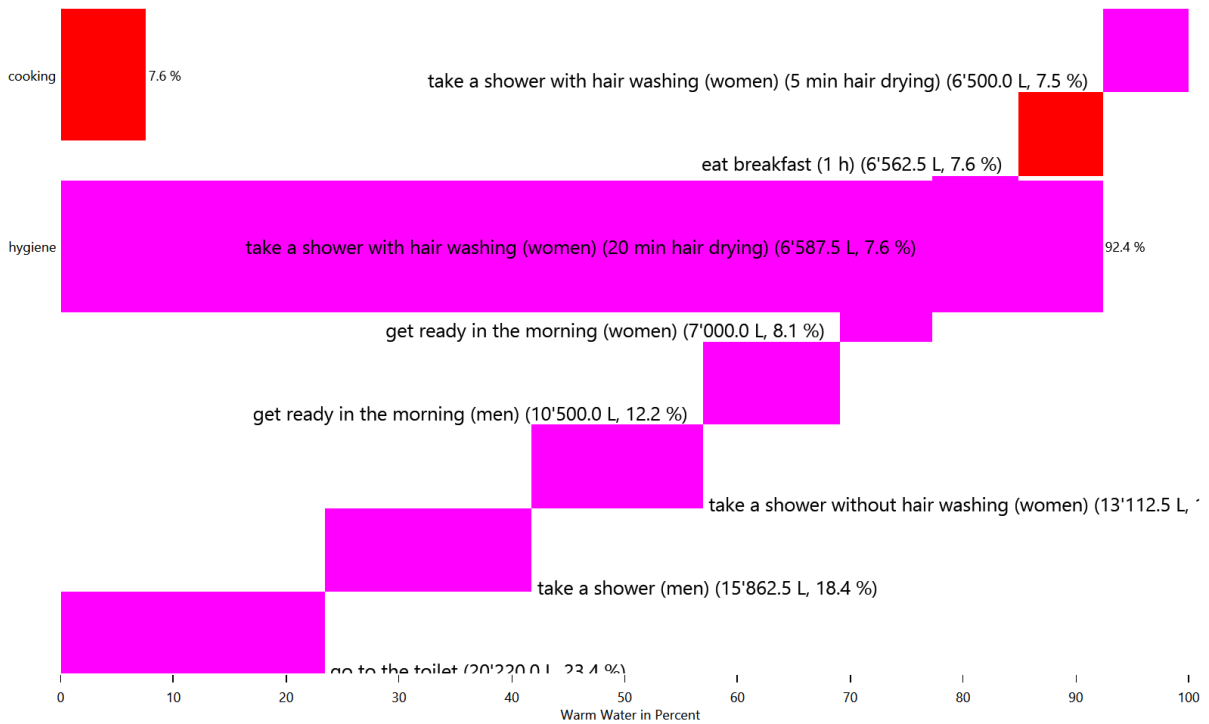




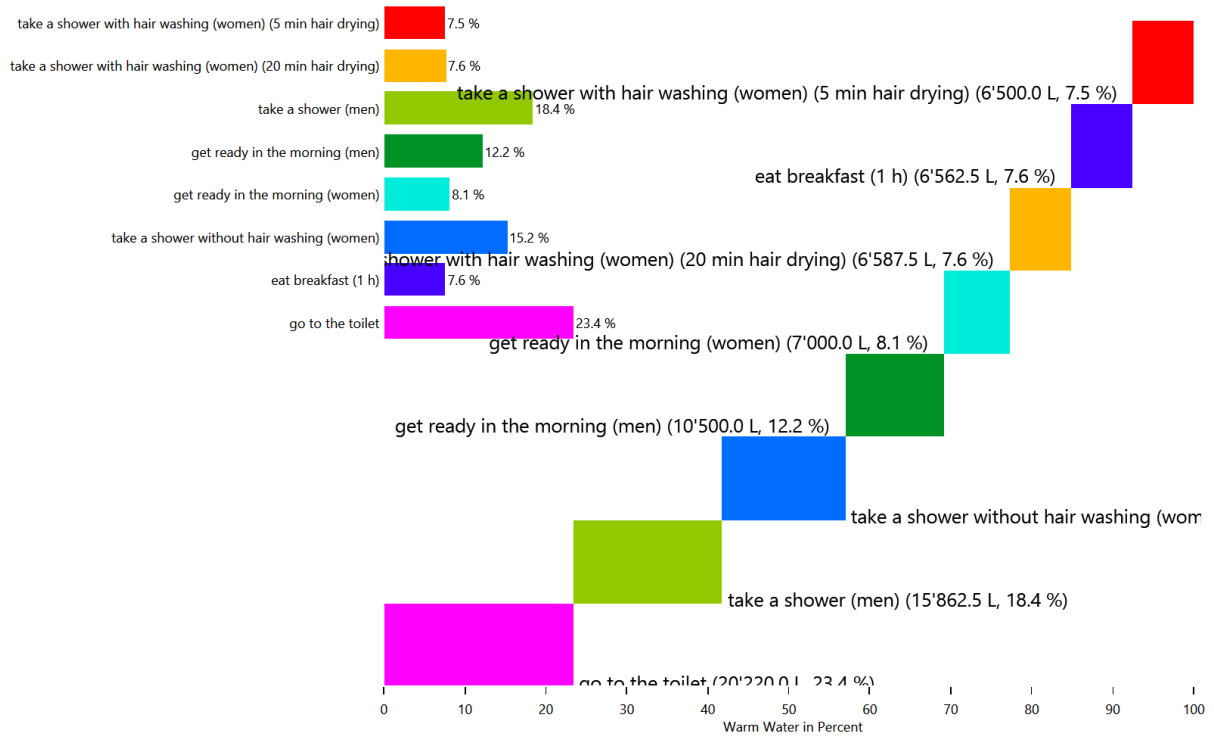
## HH0 - Electricity



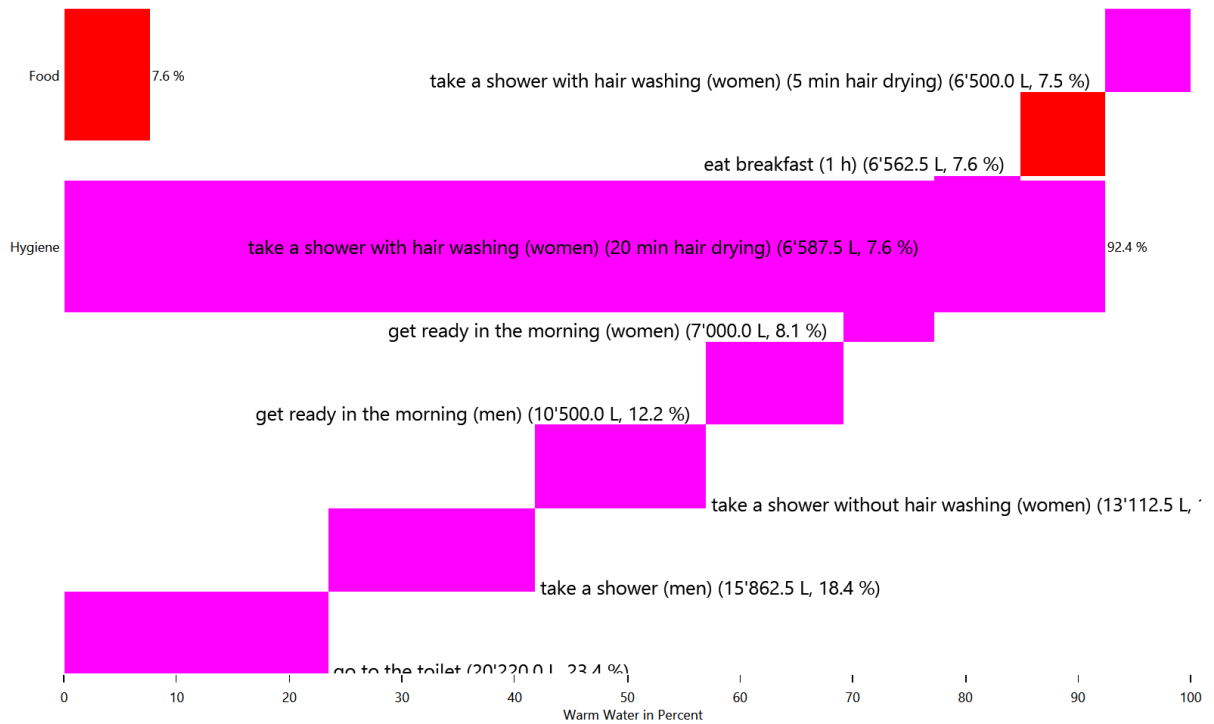
## HH0 - Warm Water



## HH0 - Warm Water



## HH0 - Warm Water

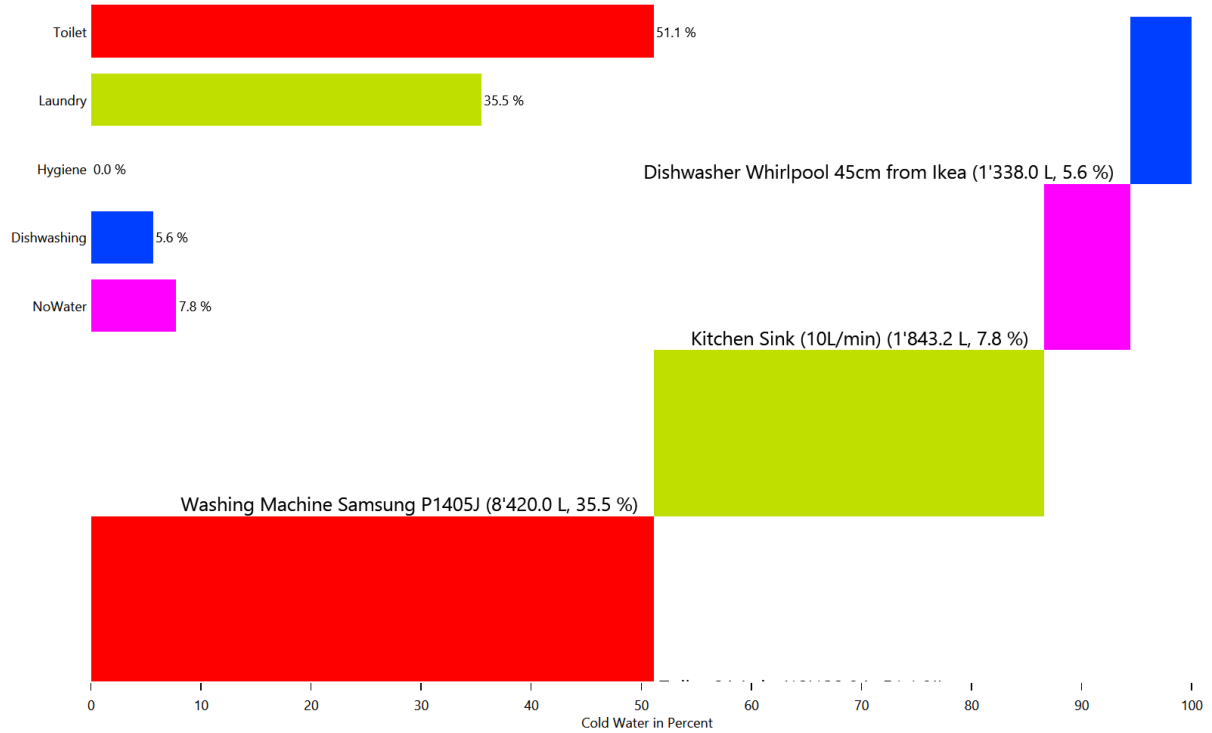


# Energy use for each load type for each device

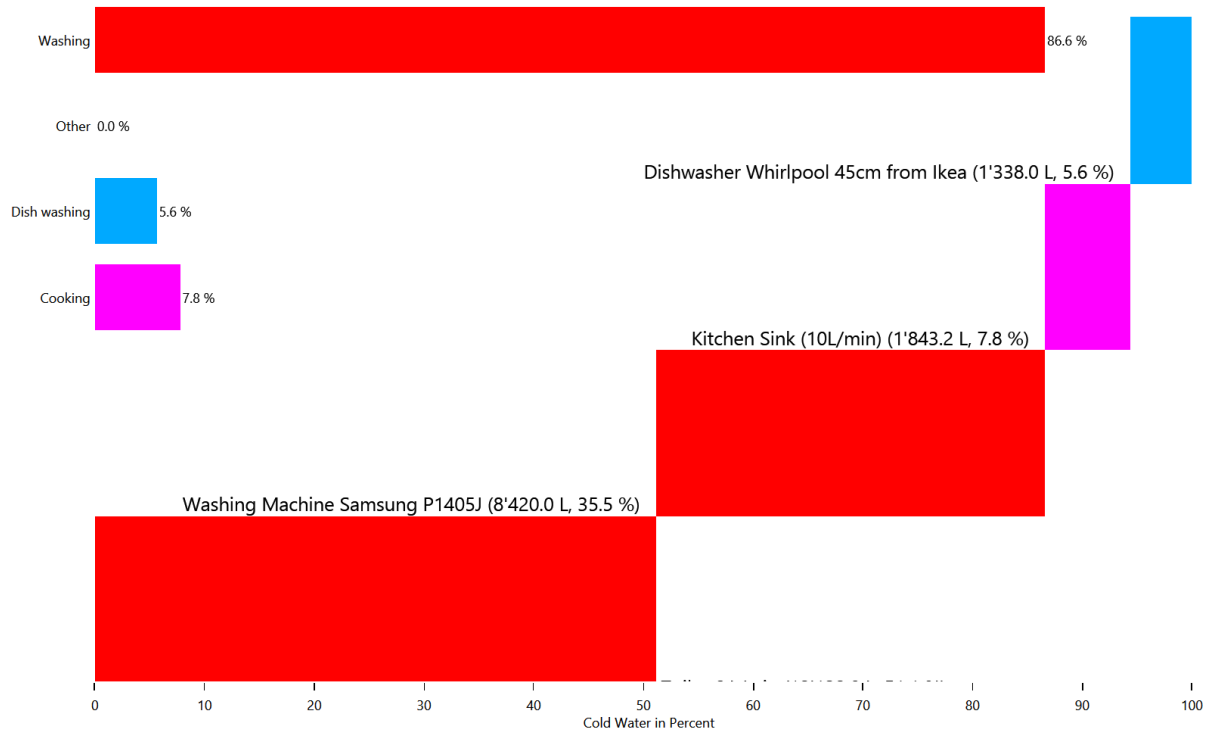
This is made from the files starting with: DeviceSums

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

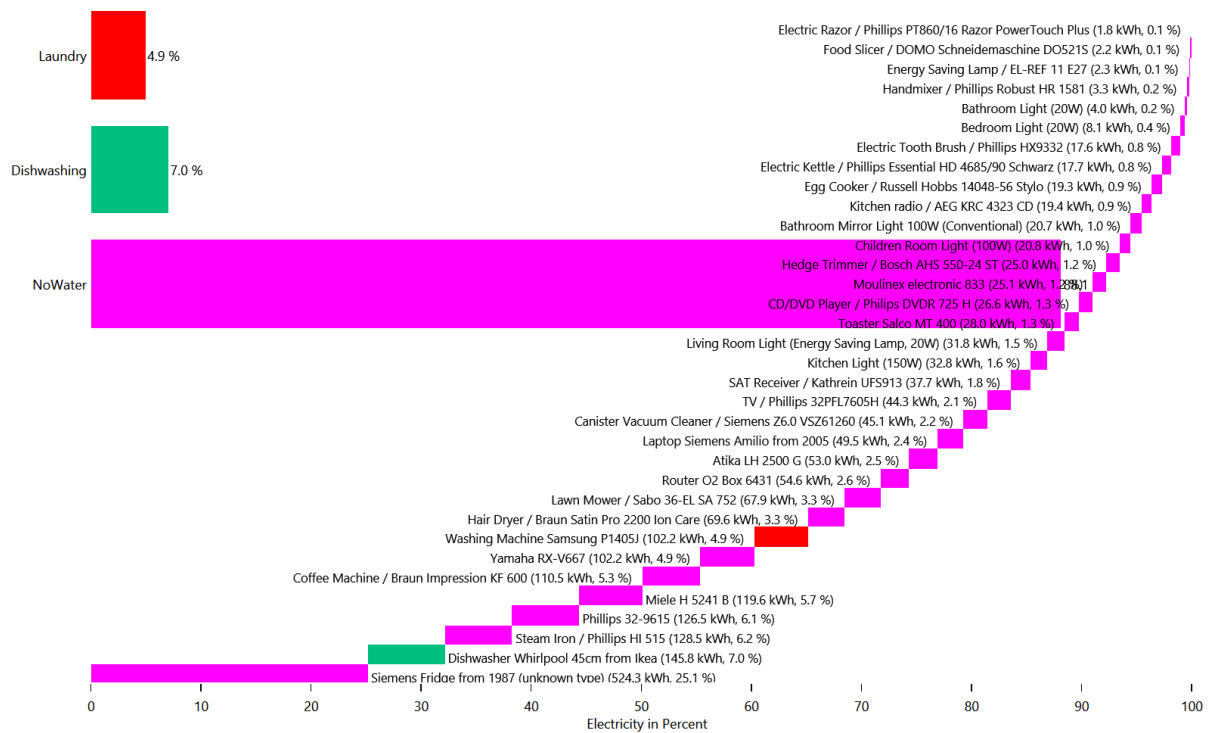
## Cold Water



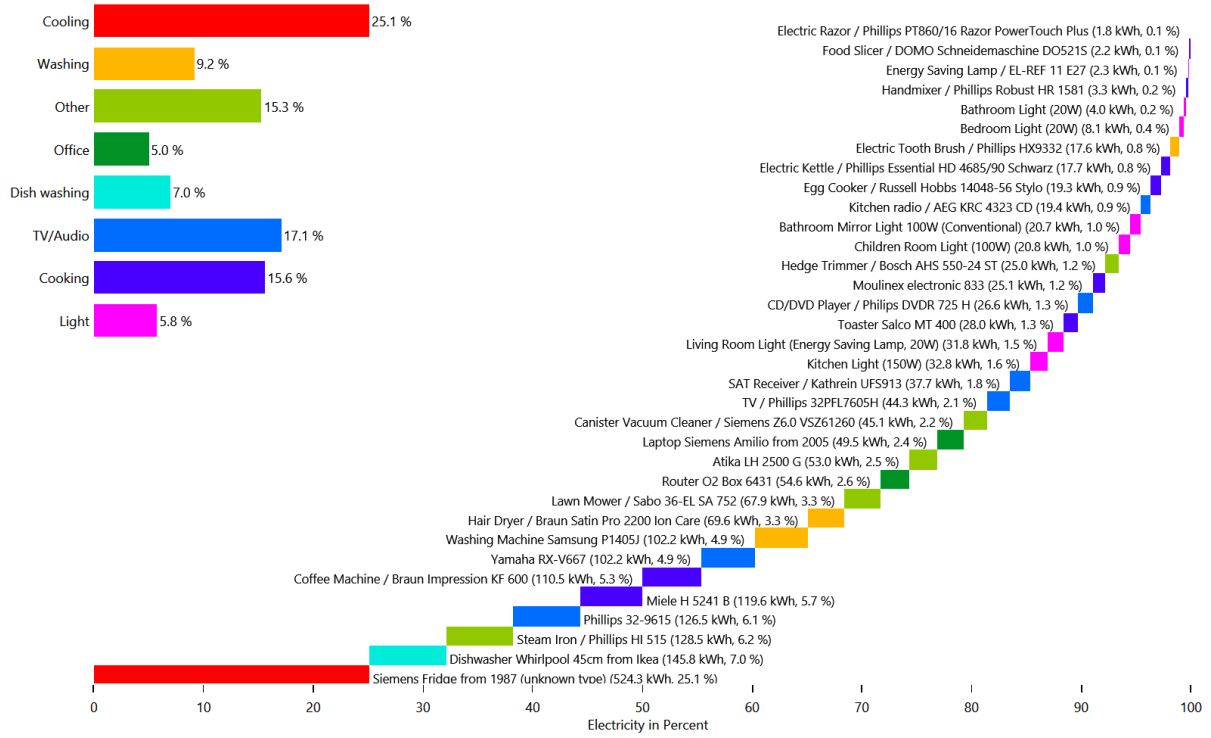
## Cold Water



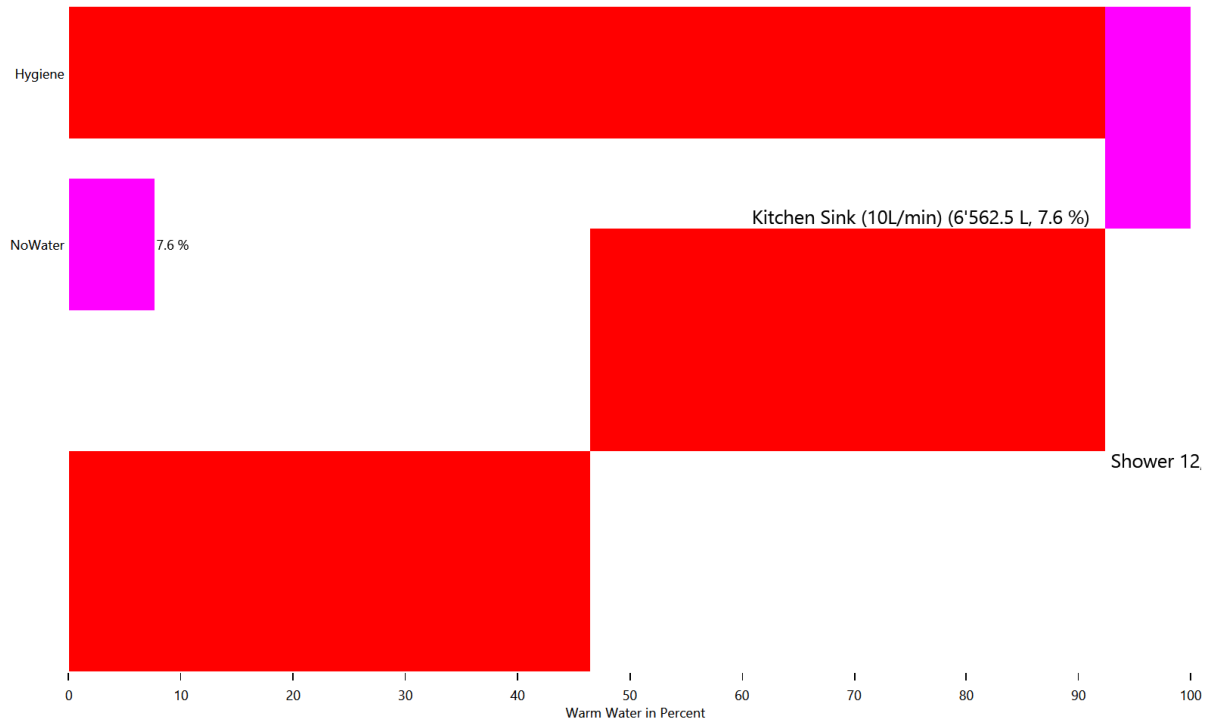
## Electricity



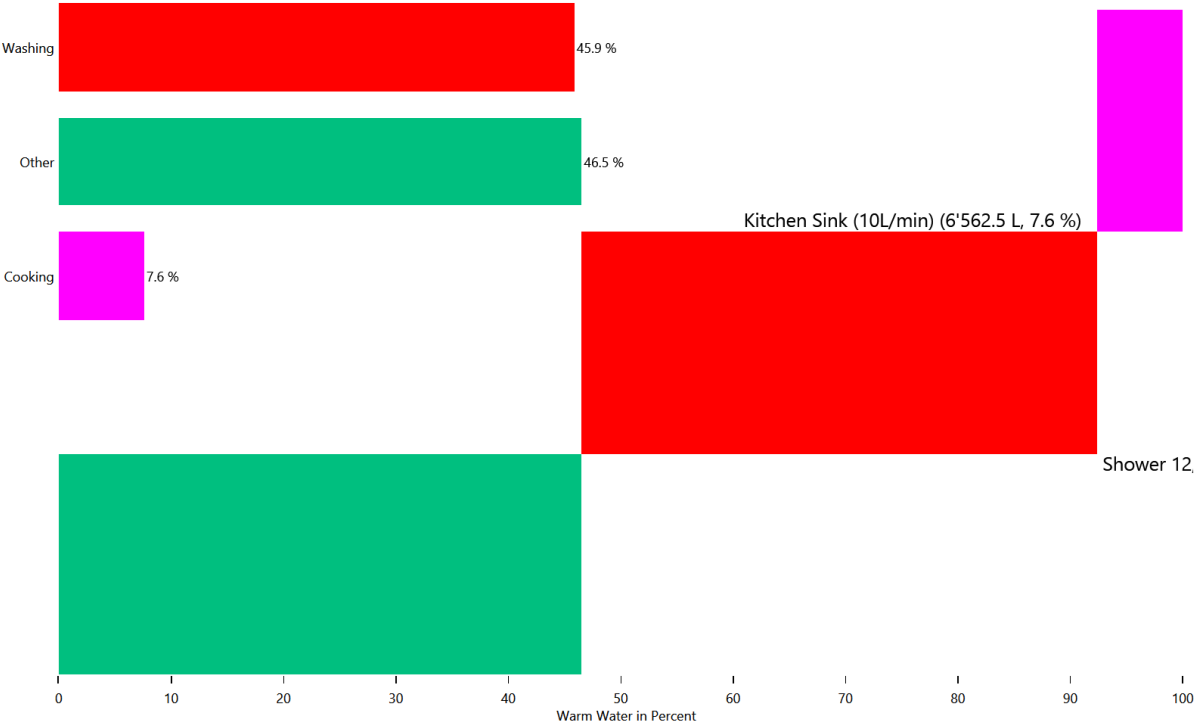
# Electricity



# Warm Water



# Warm Water

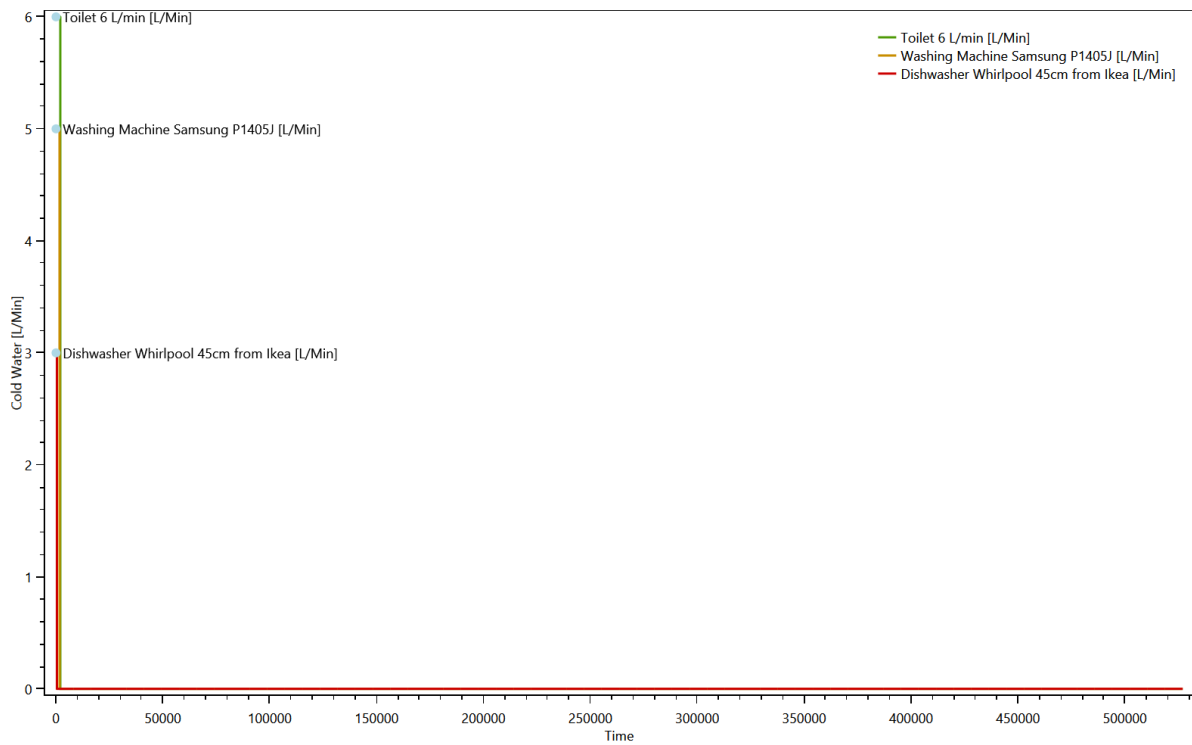


# Duration curve for each device for each load type

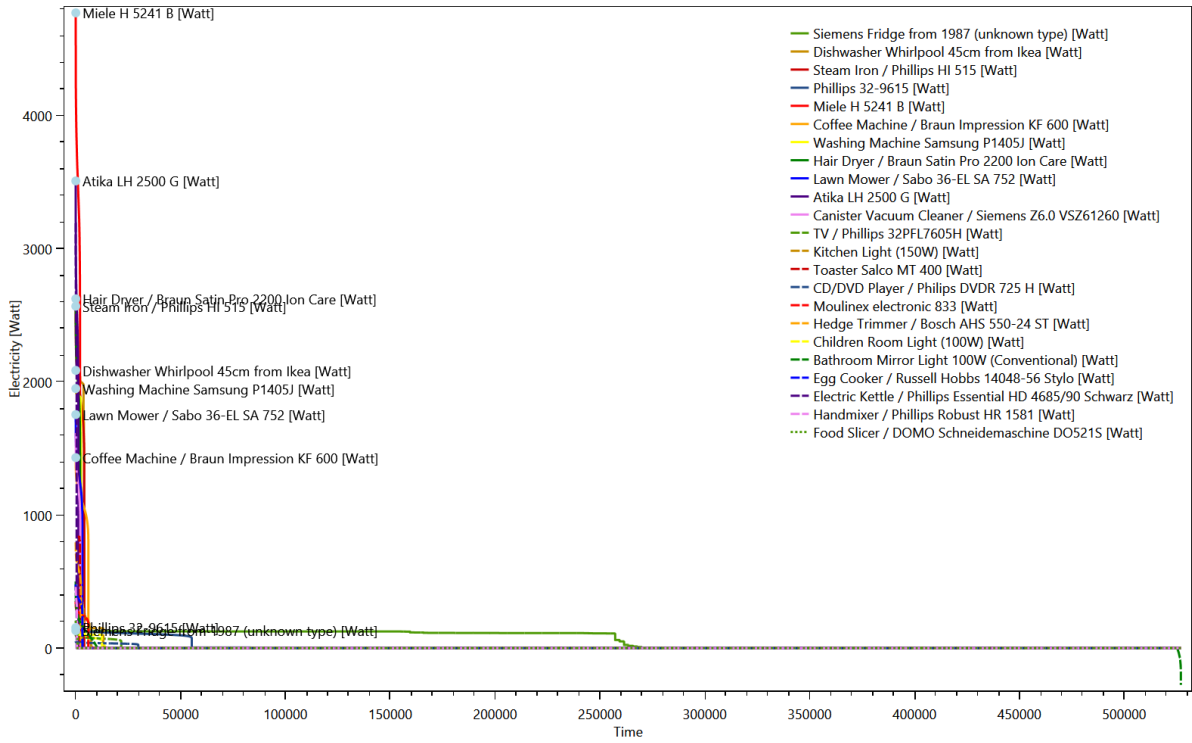
This is made from the files starting with: DeviceDurationCurves

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

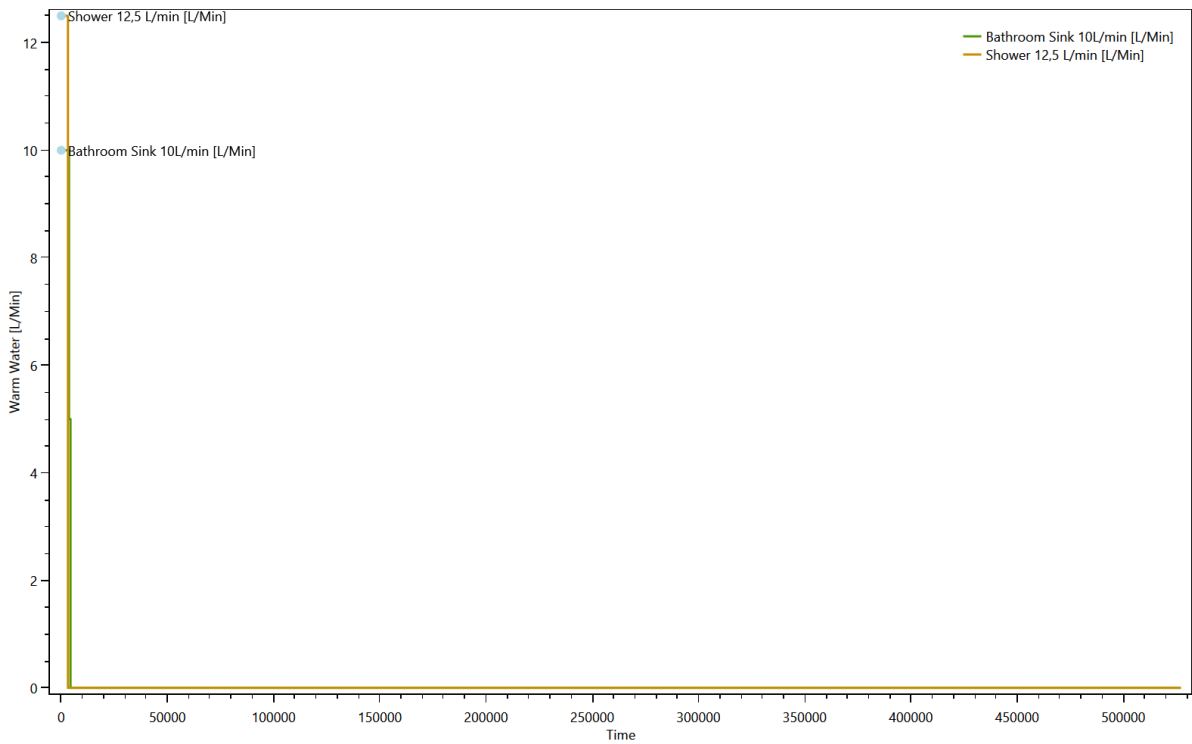
## Cold Water



## Electricity



## Warm Water



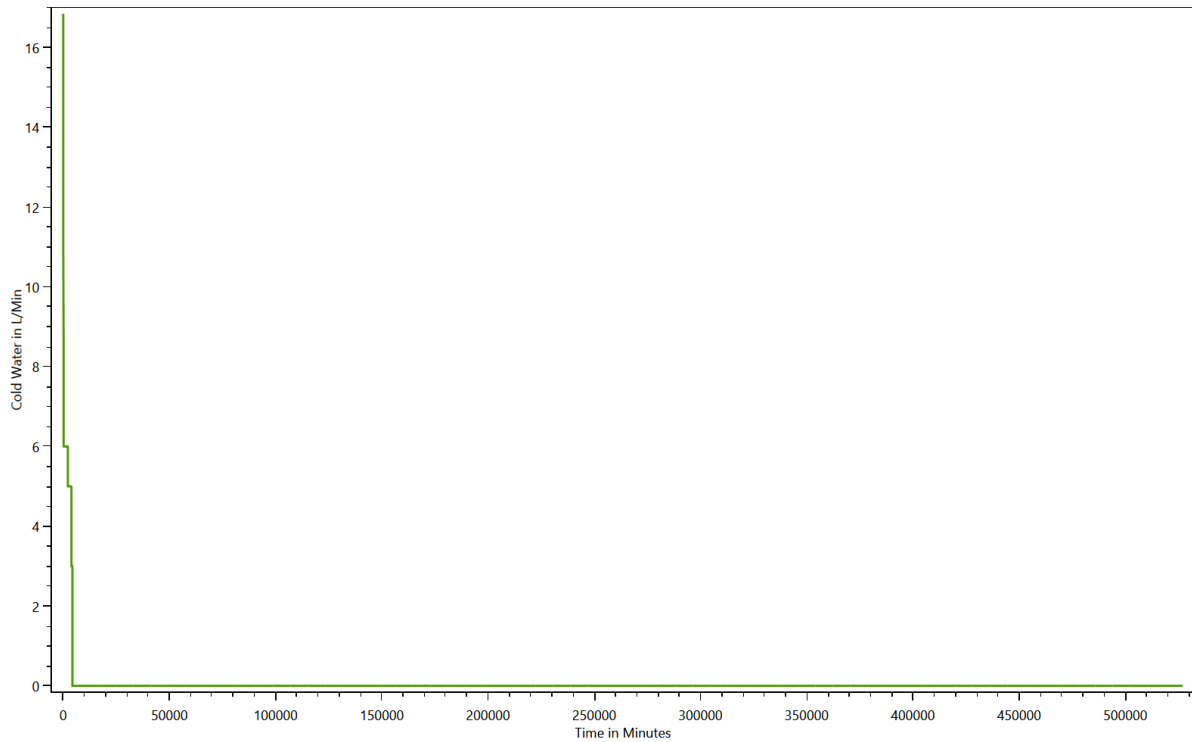


# Duration curve for each load type

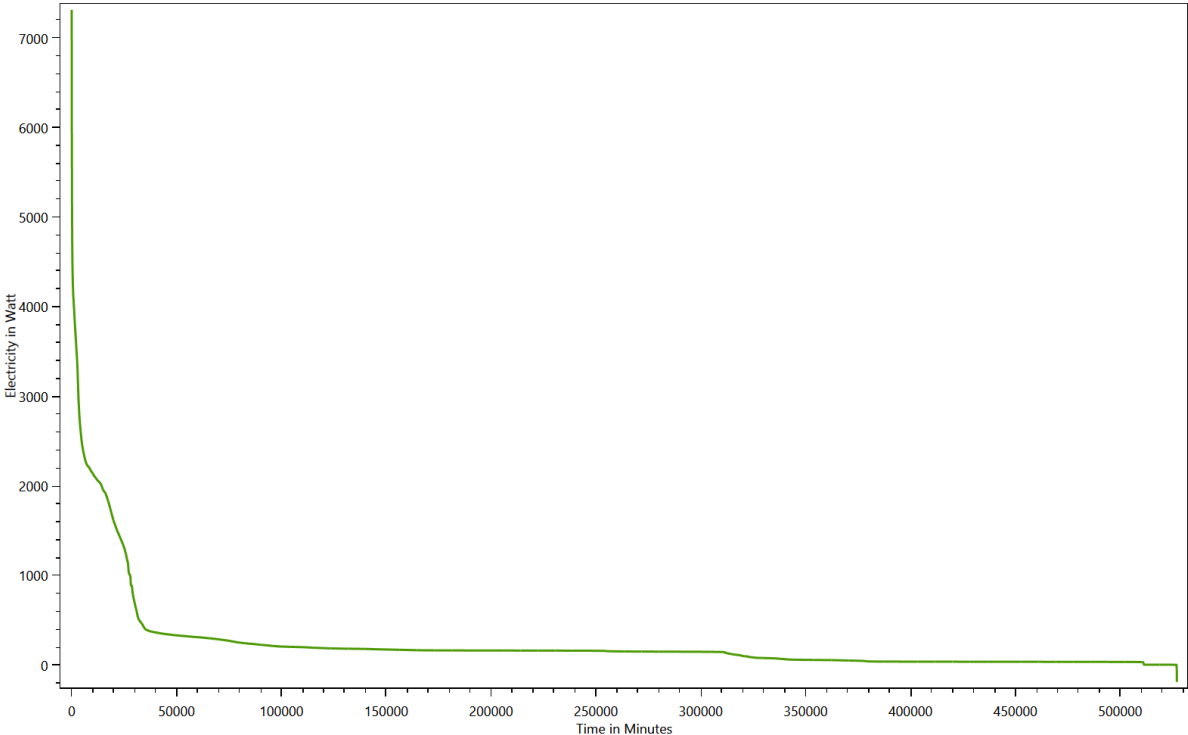
This is made from the files starting with: DurationCurve

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

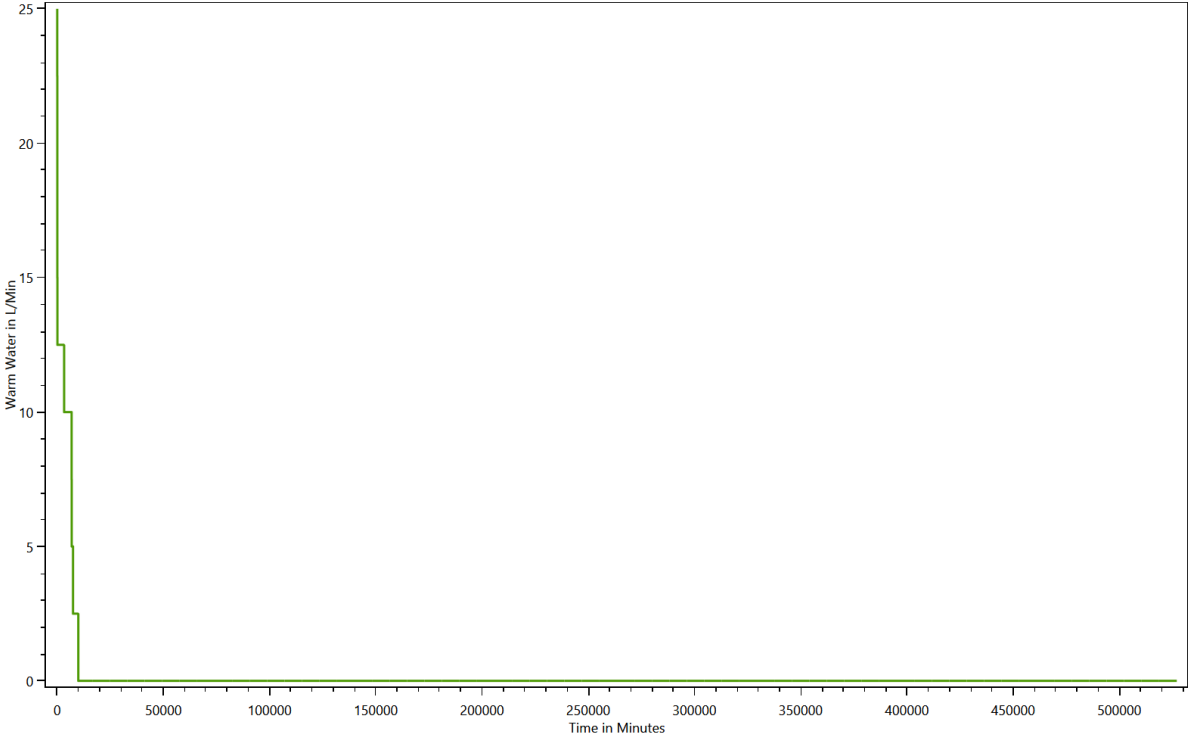
## Cold Water



# Electricity



# Warm Water

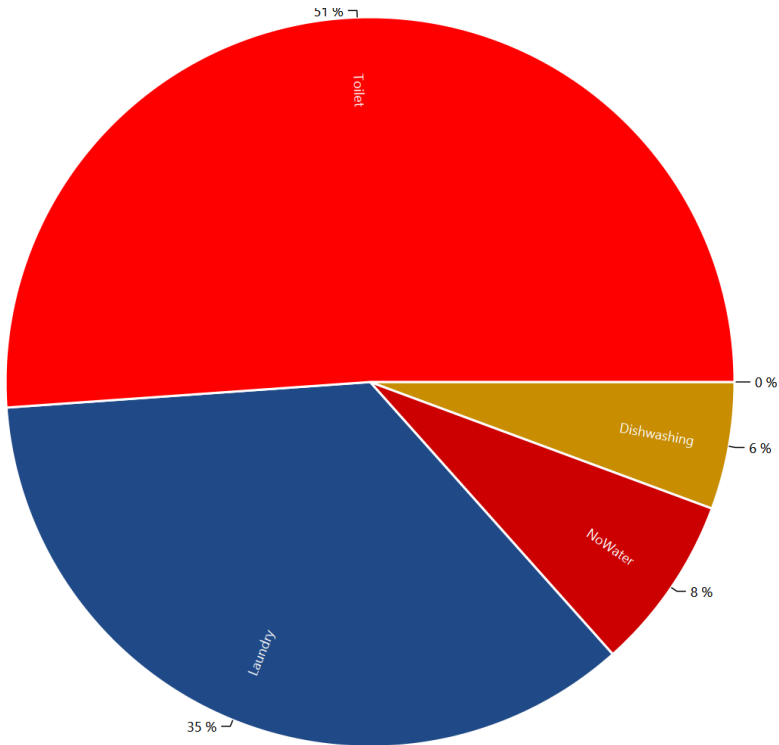


# Grouped energy use for each load type for each device

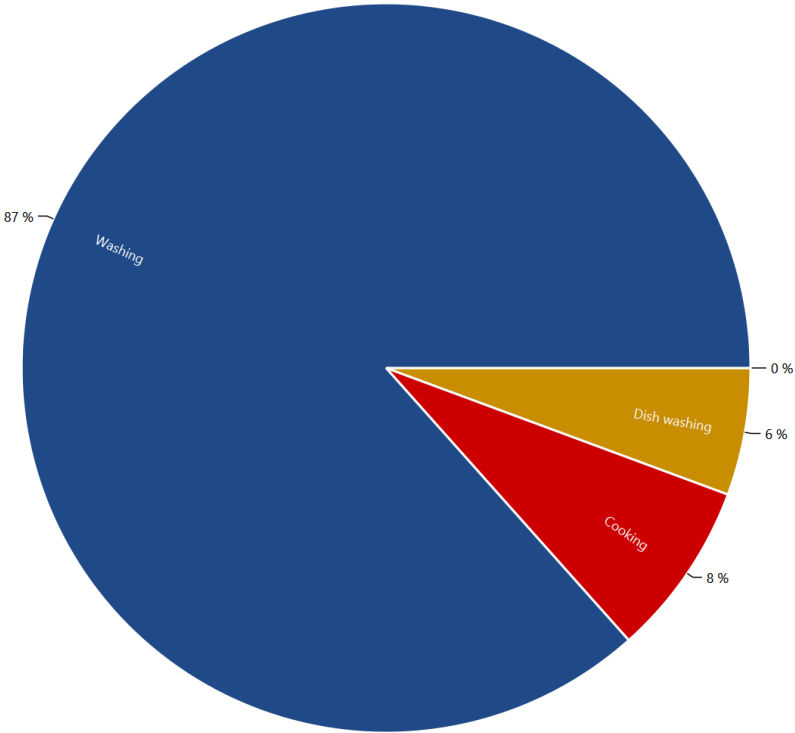
This is made from the files starting with: DeviceTaggingSet

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

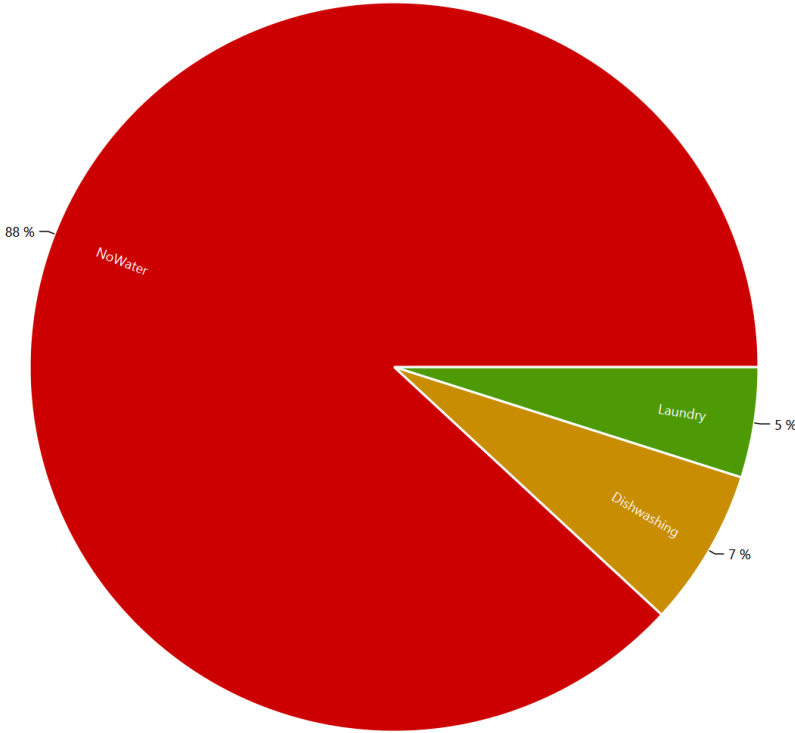
## HH0 - Destatis Water Usage Statistics - Cold Water



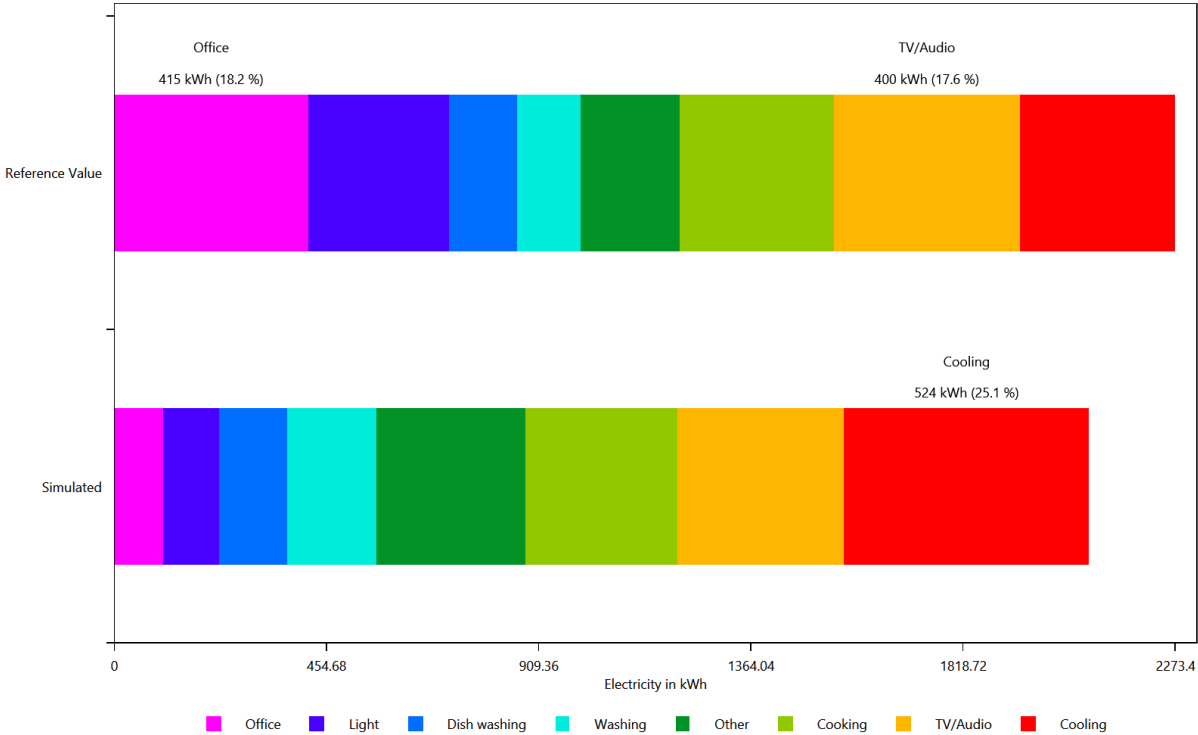
HH0 - Energieagentur - Cold Water



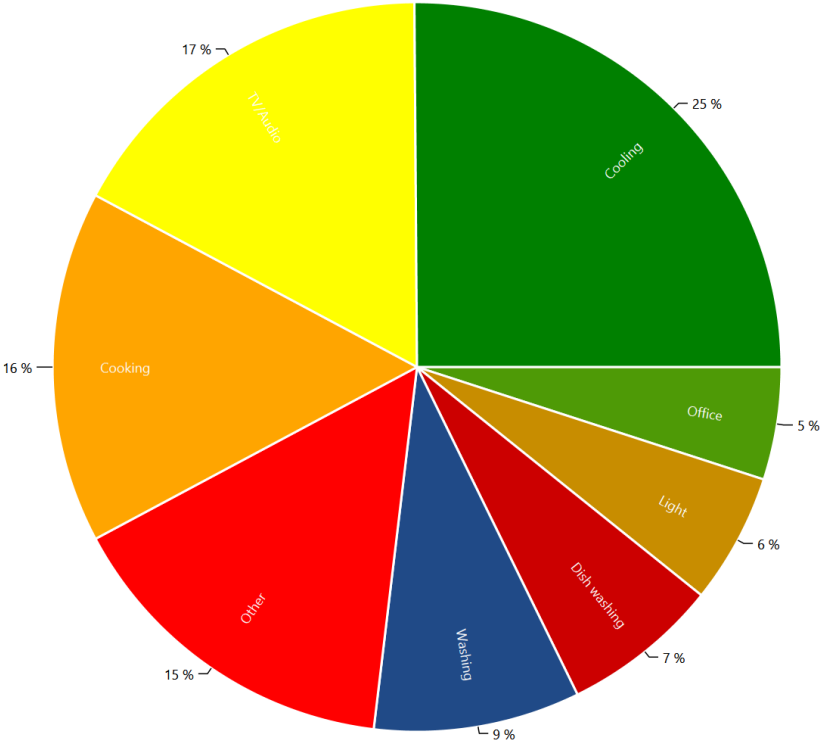
HH0 - Destatis Water Usage Statistics - Electricity



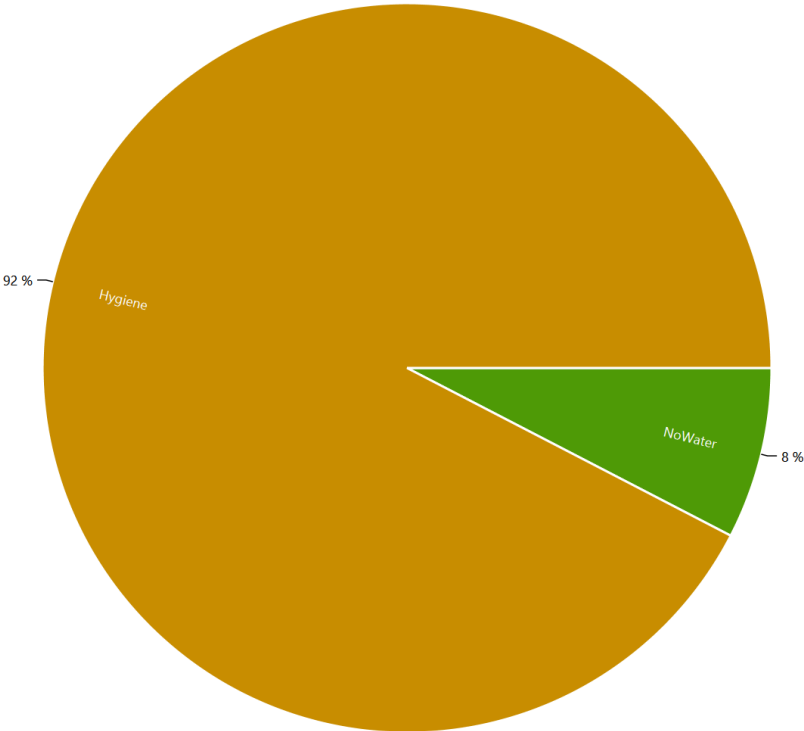
# HH0 - Energieagentur - Electricity



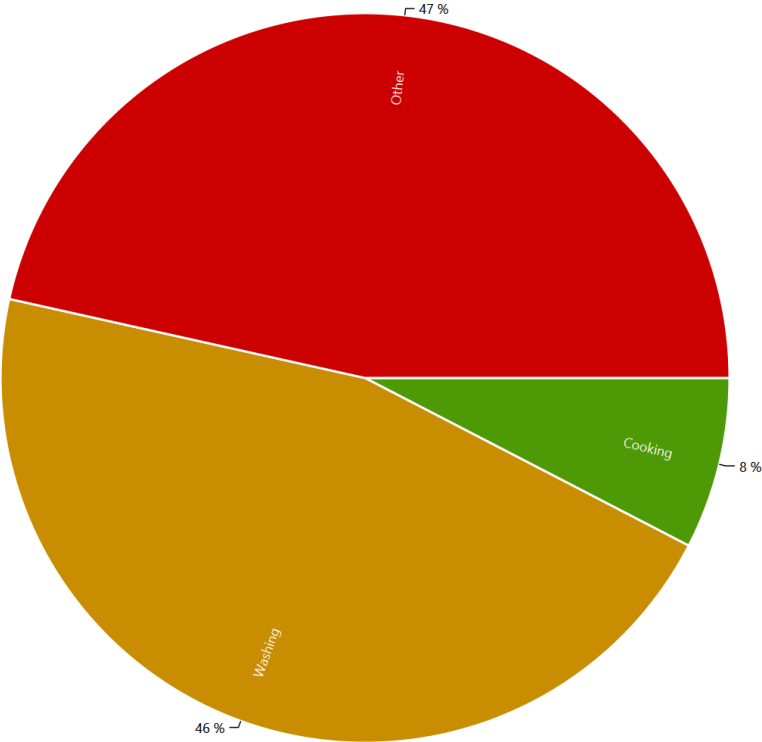
# HH0 - Energieagentur - Electricity



HH0 - Destatis Water Usage Statistics - Warm Water



HH0 - Energieagentur - Warm Water

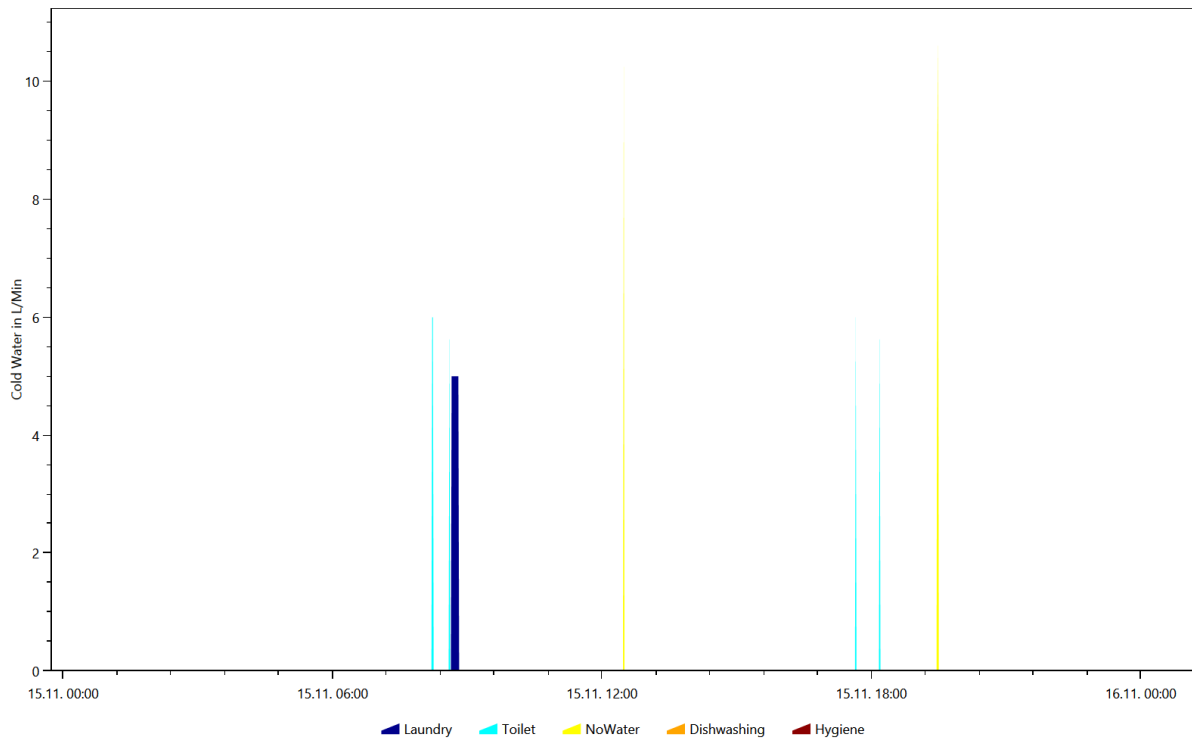


# Example of the device profiles for each load type

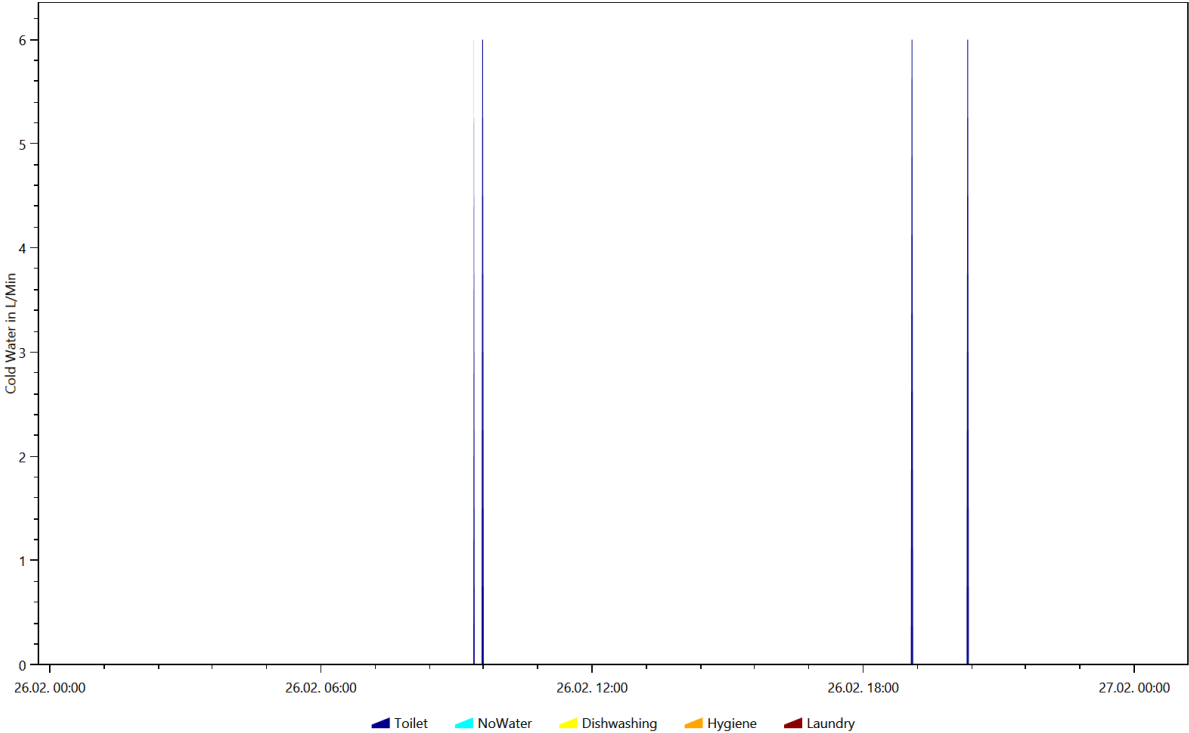
This is made from the files starting with: DeviceProfiles

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

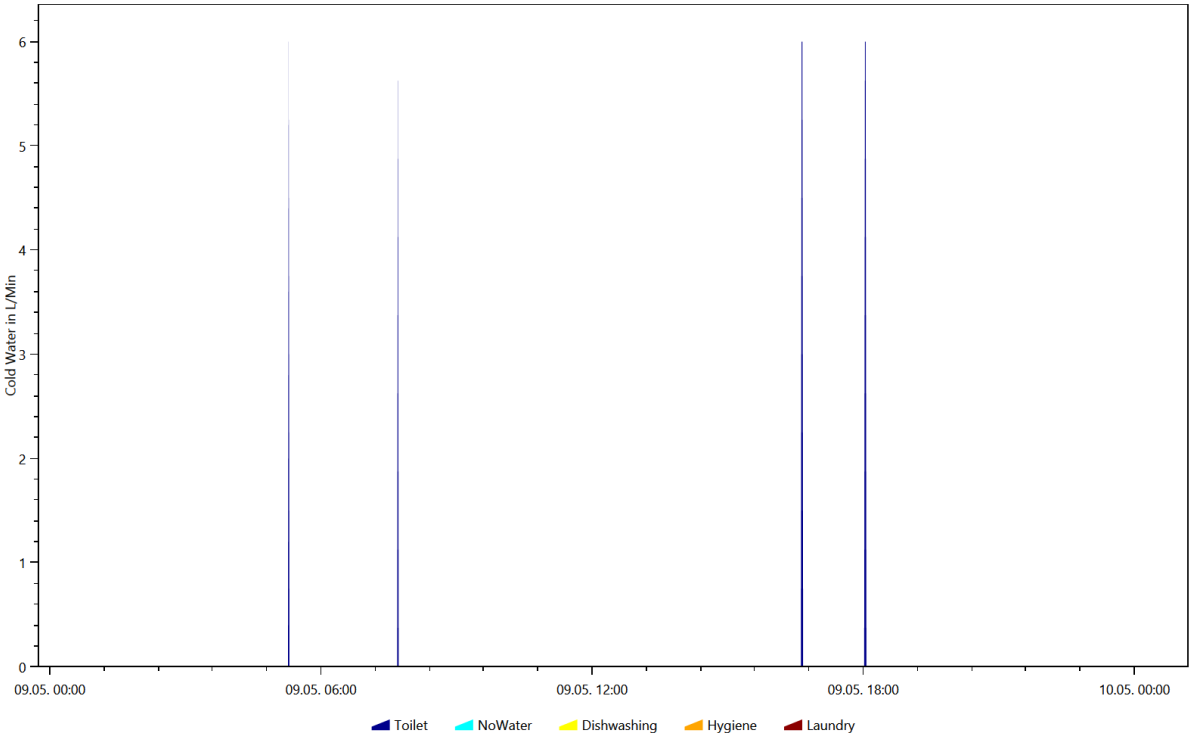
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.11.15



Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.2.26

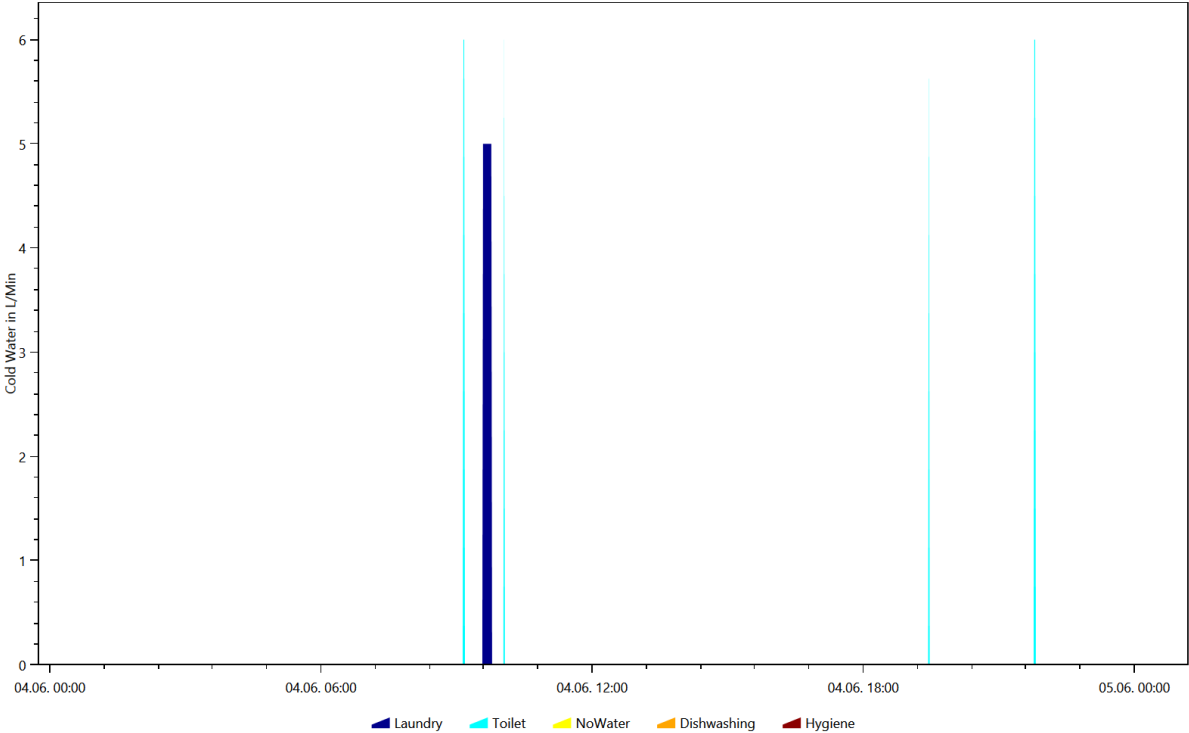


Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.5.9

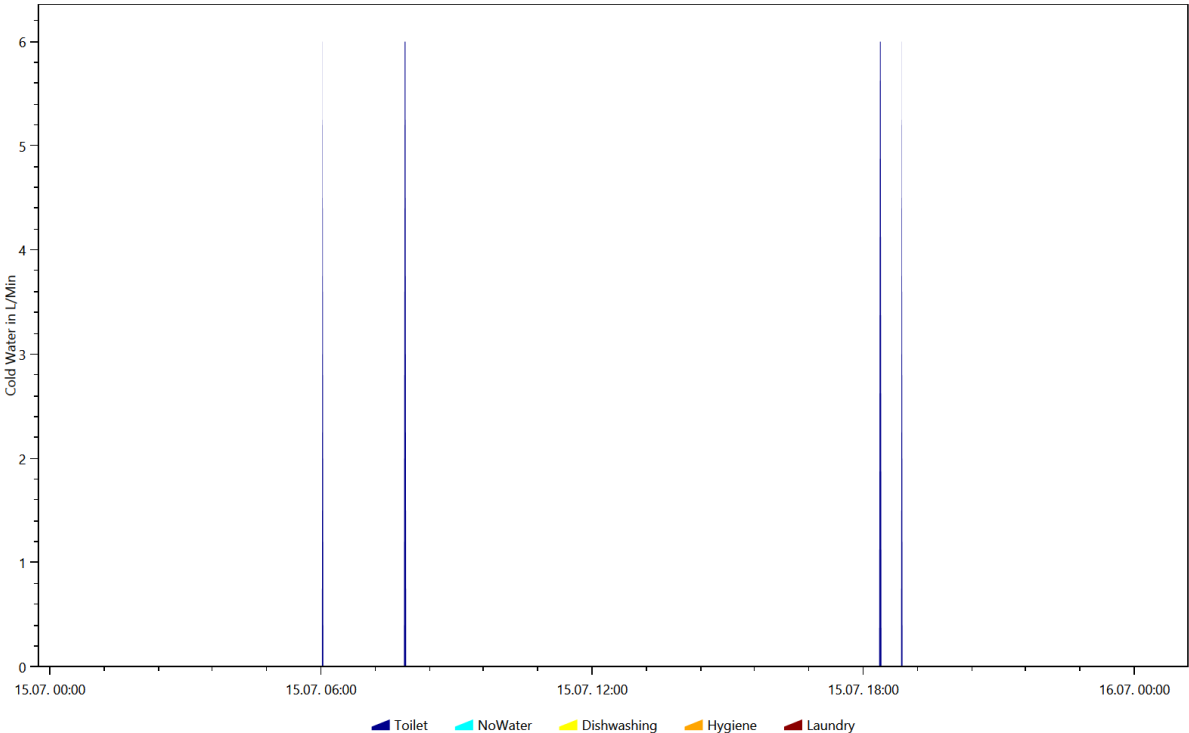




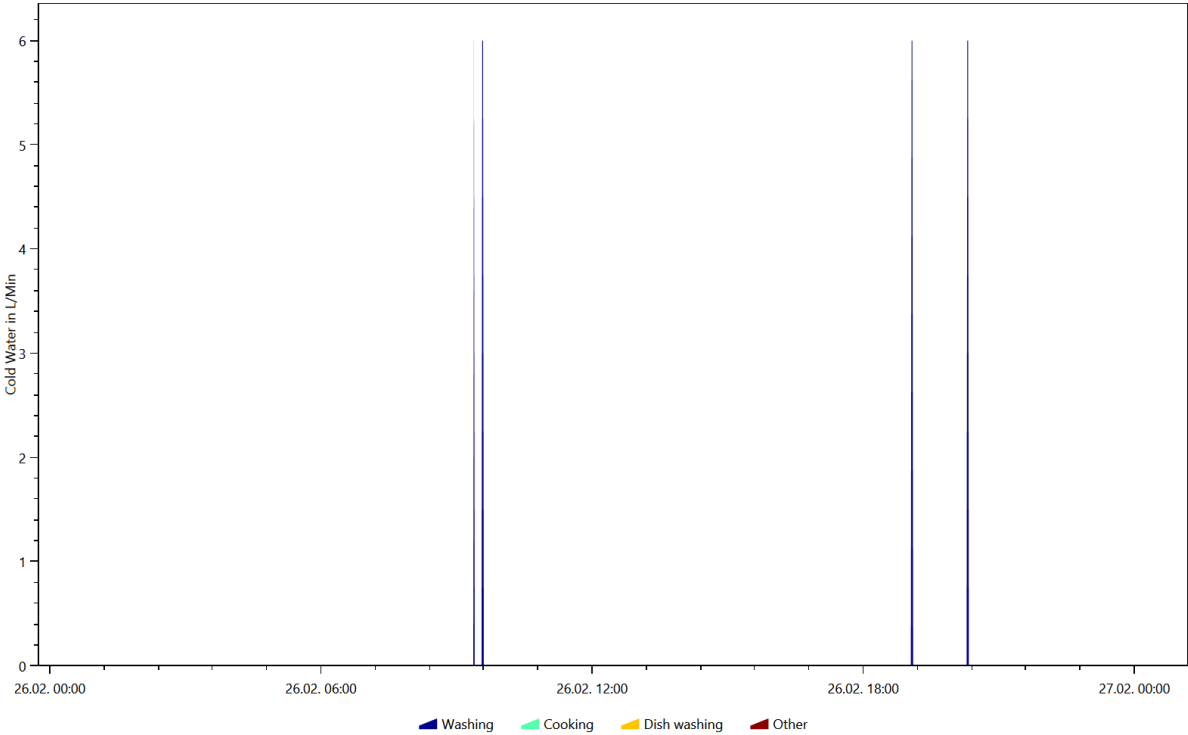
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.6.4



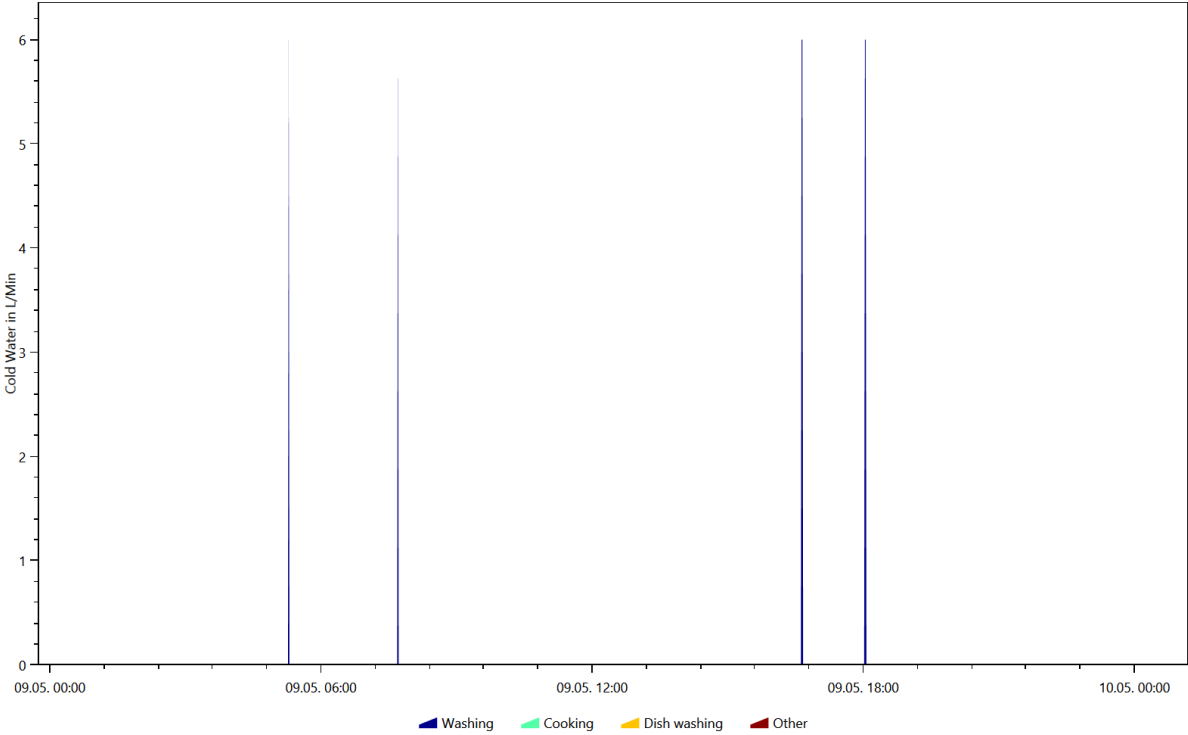
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.7.15



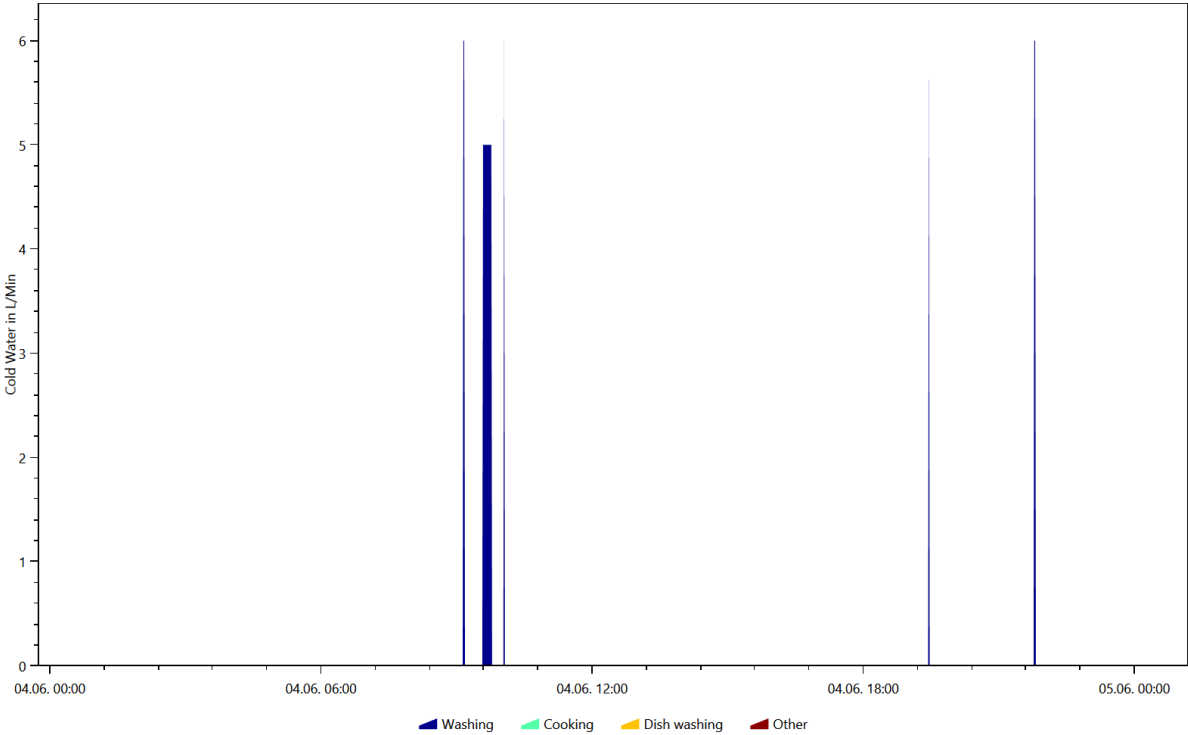
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.2.26



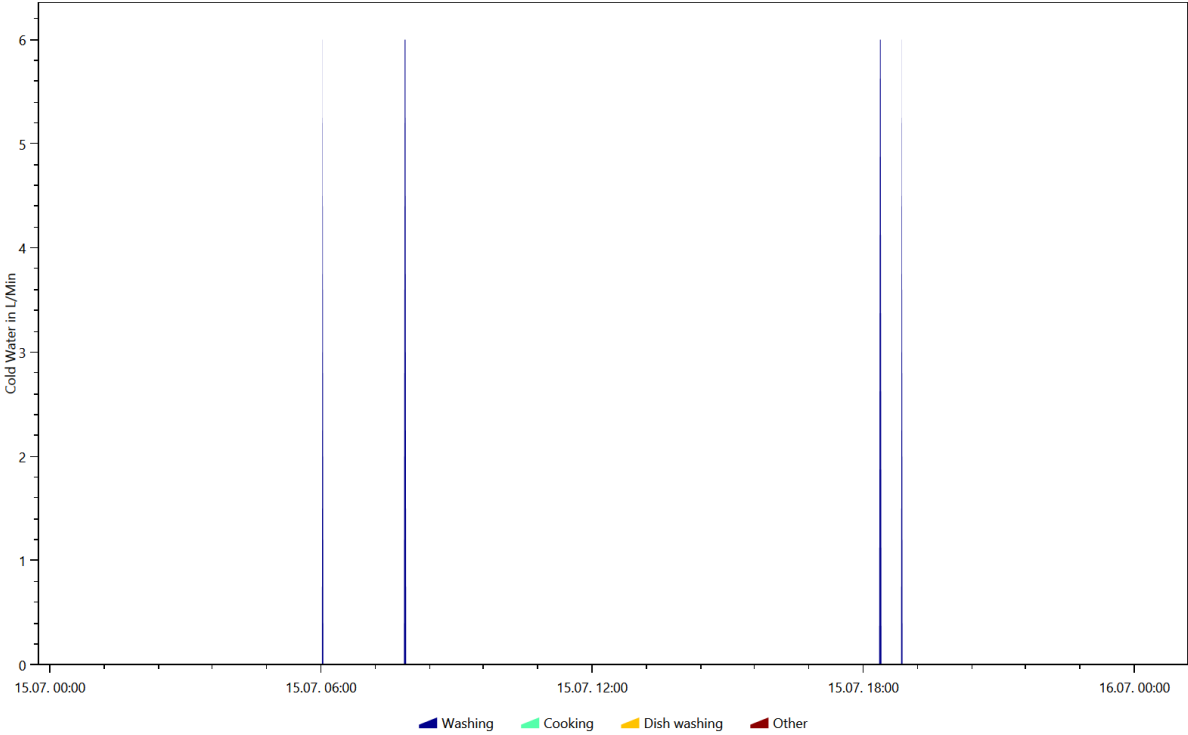
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.5.9



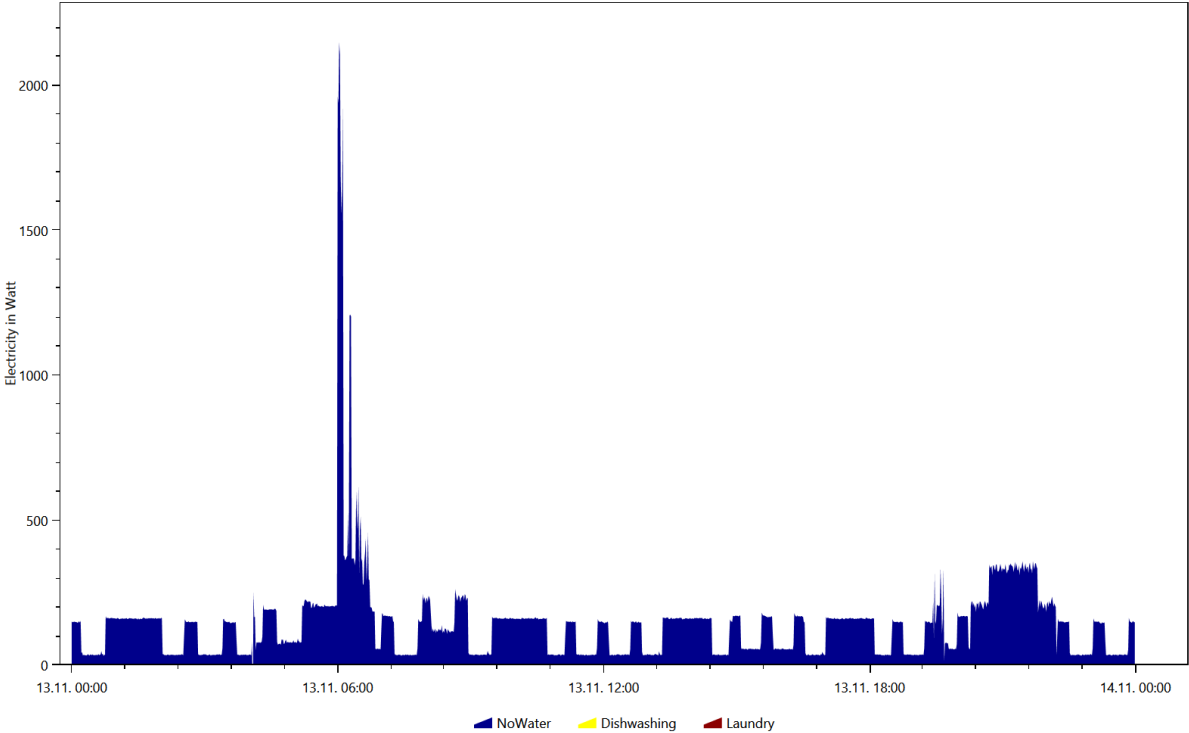
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.6.4



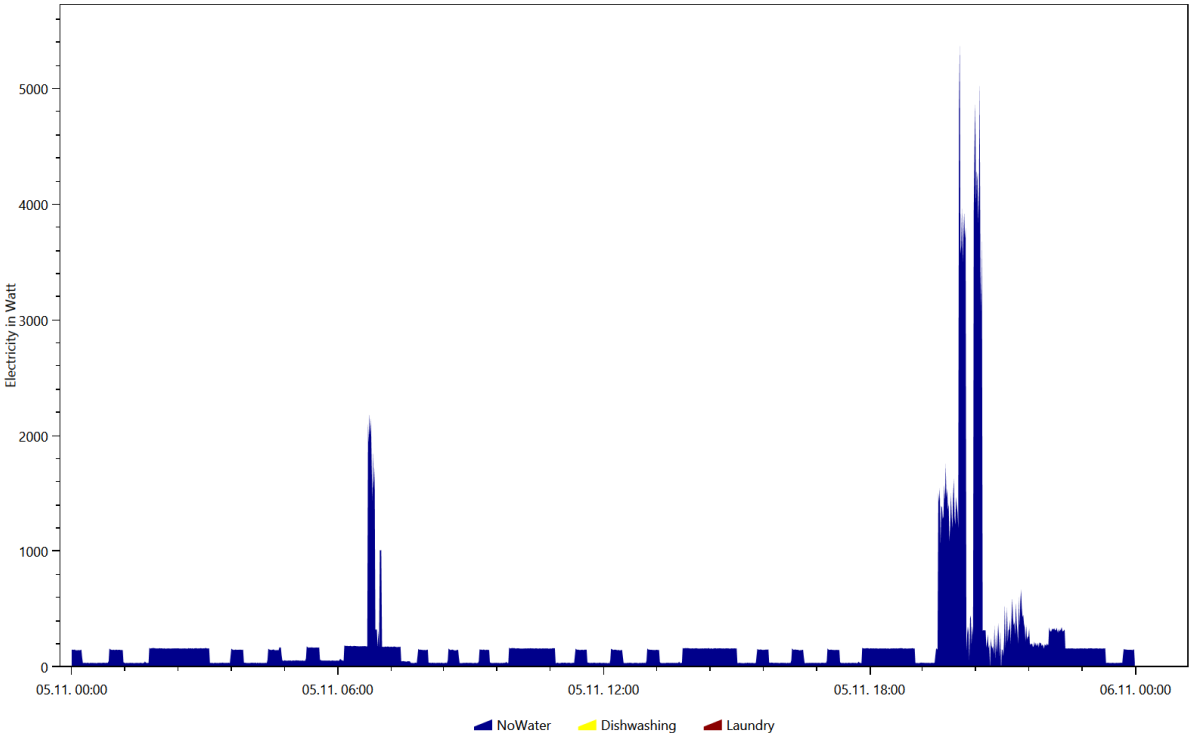
Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.7.15



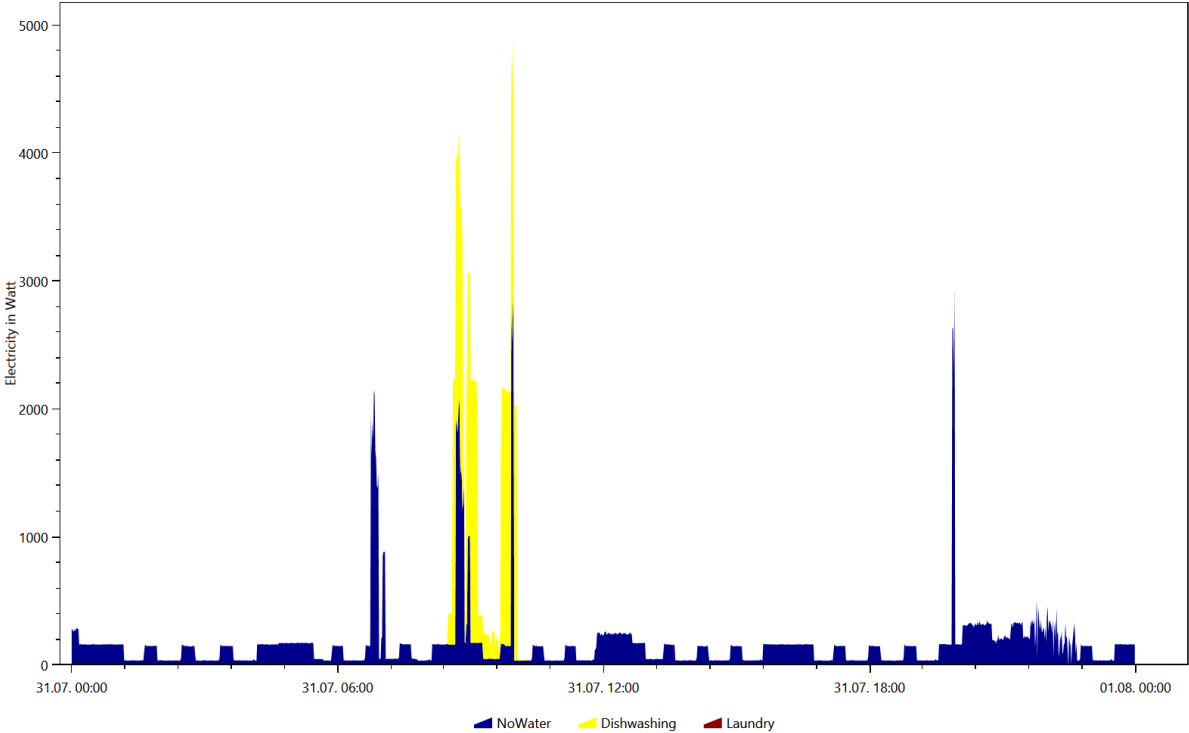
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.11.13



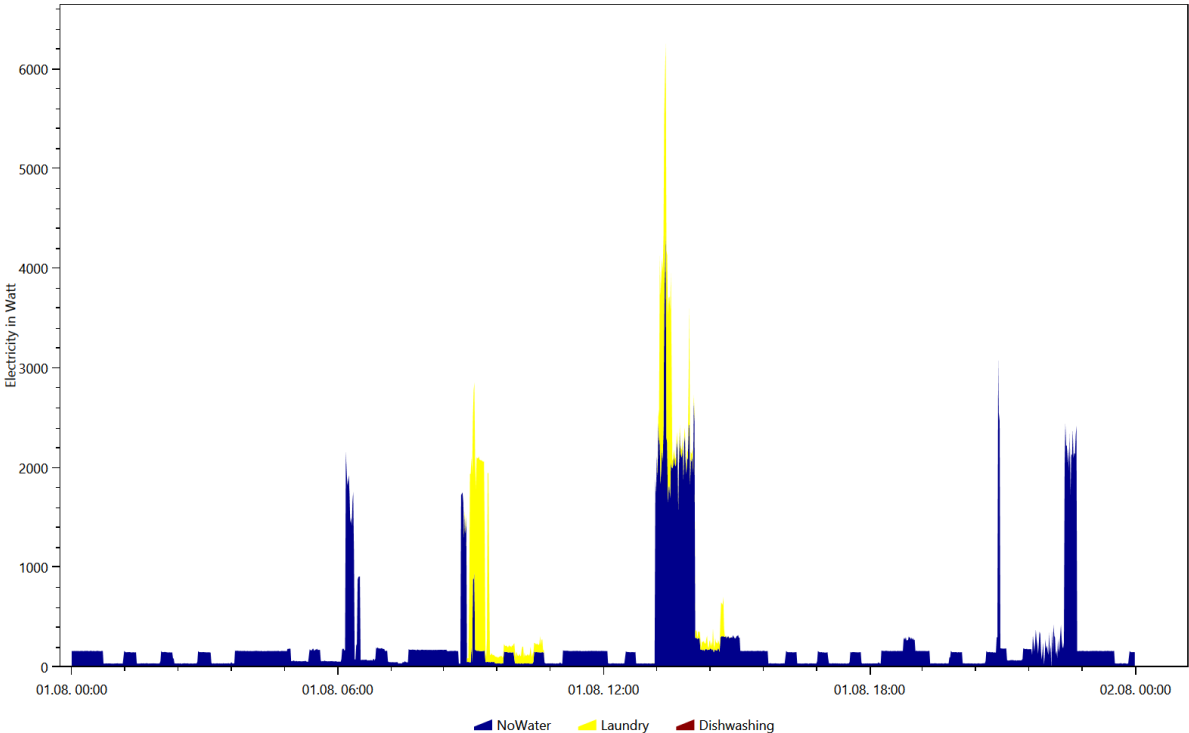
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.11.5



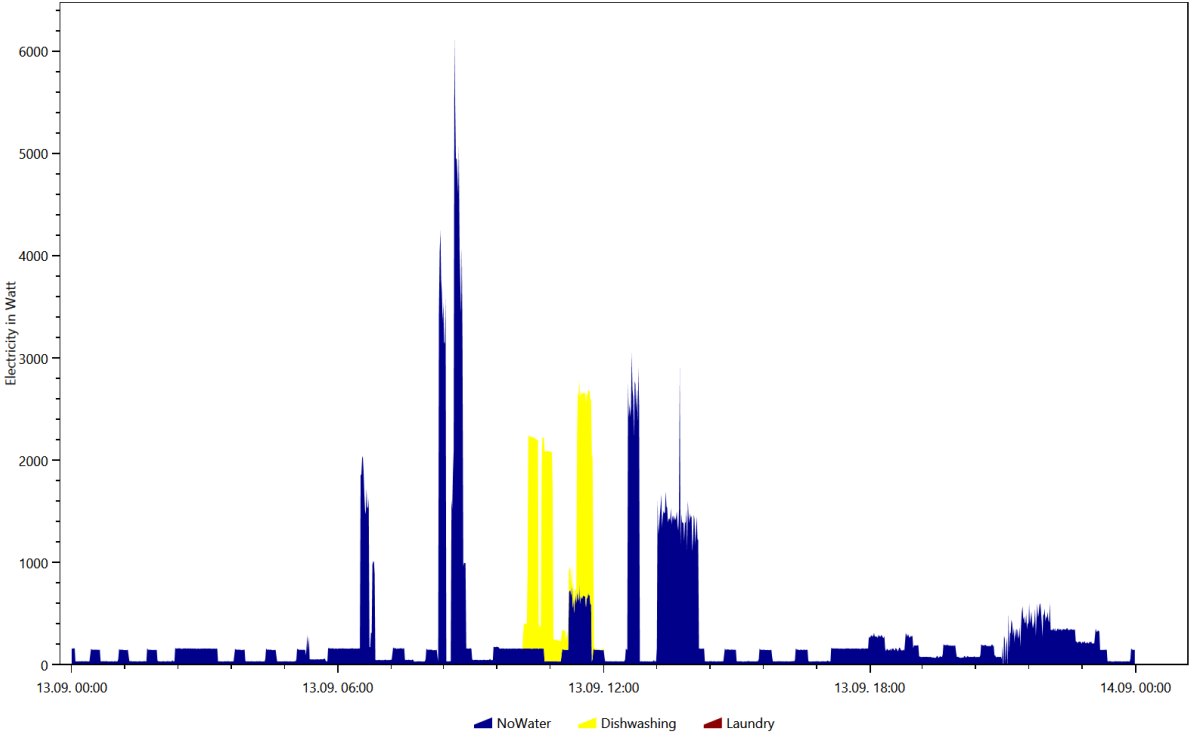
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.7.31



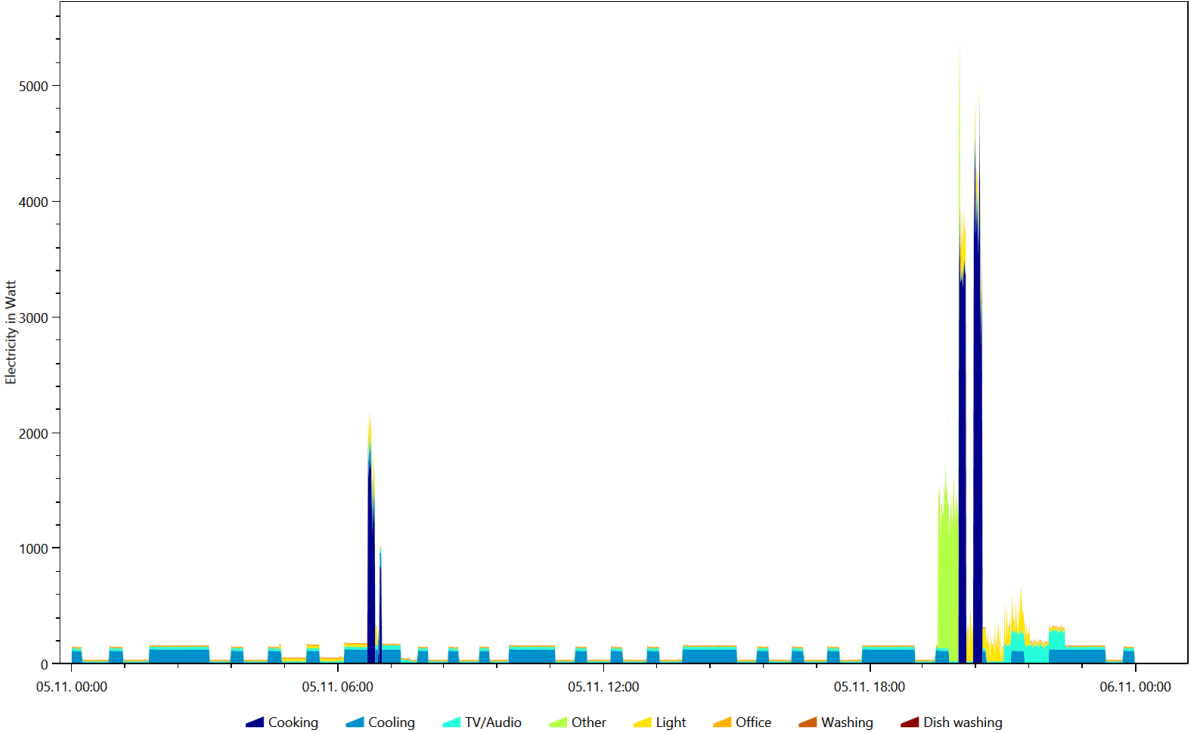
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.8.1



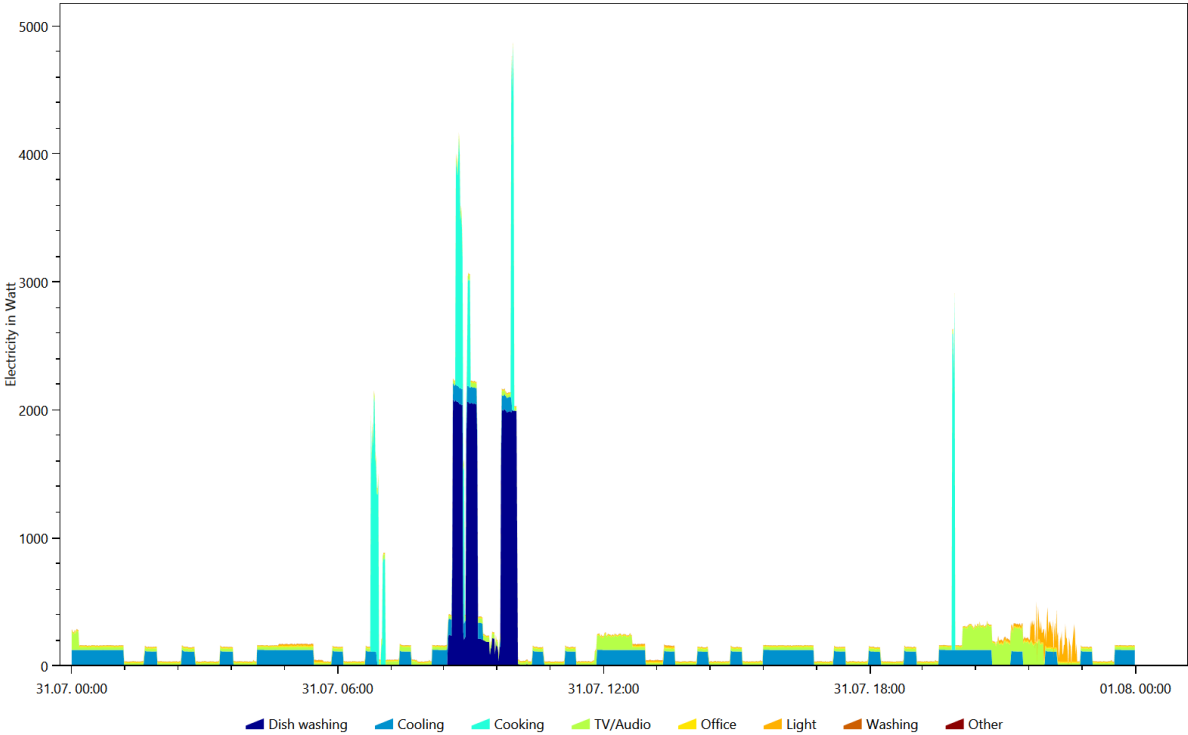
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.9.13



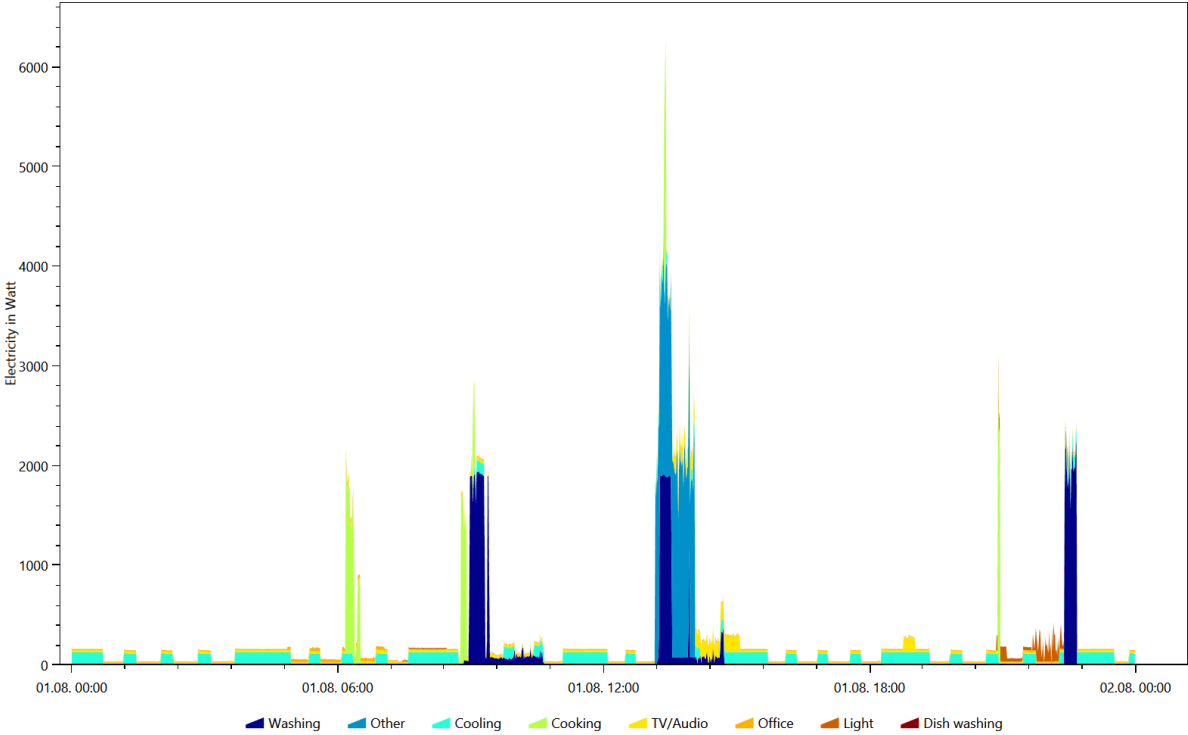
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.11.5



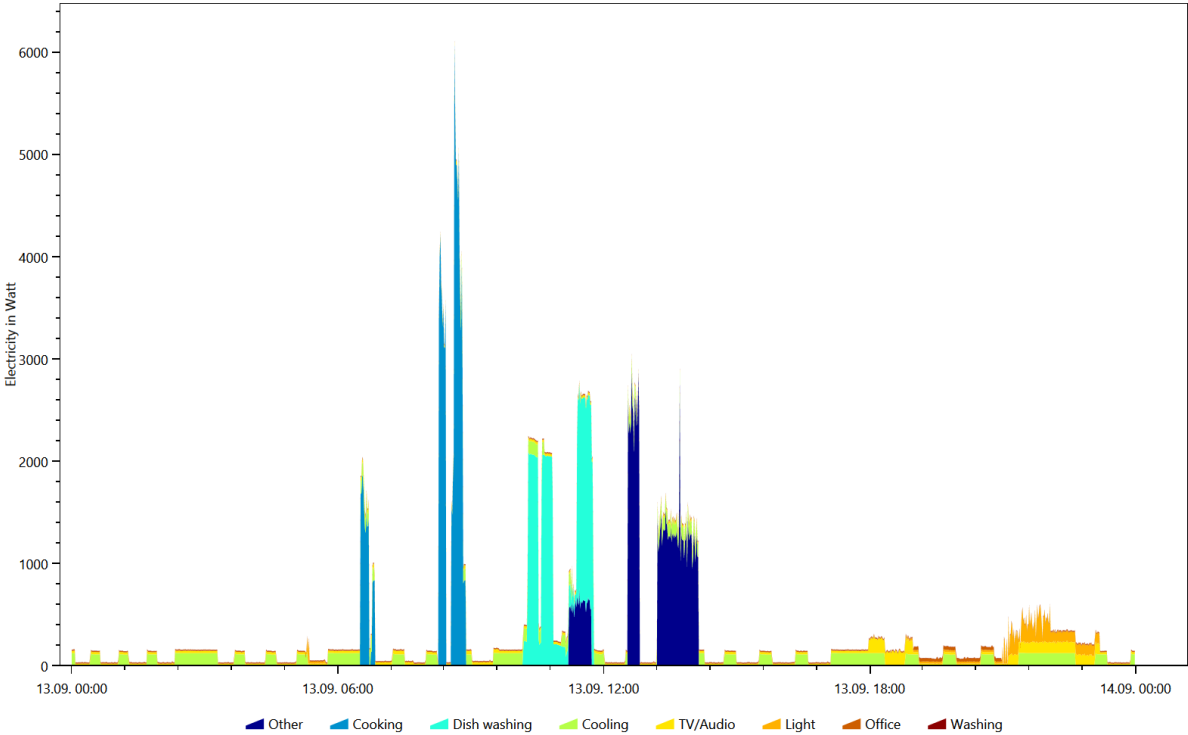
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.7.31



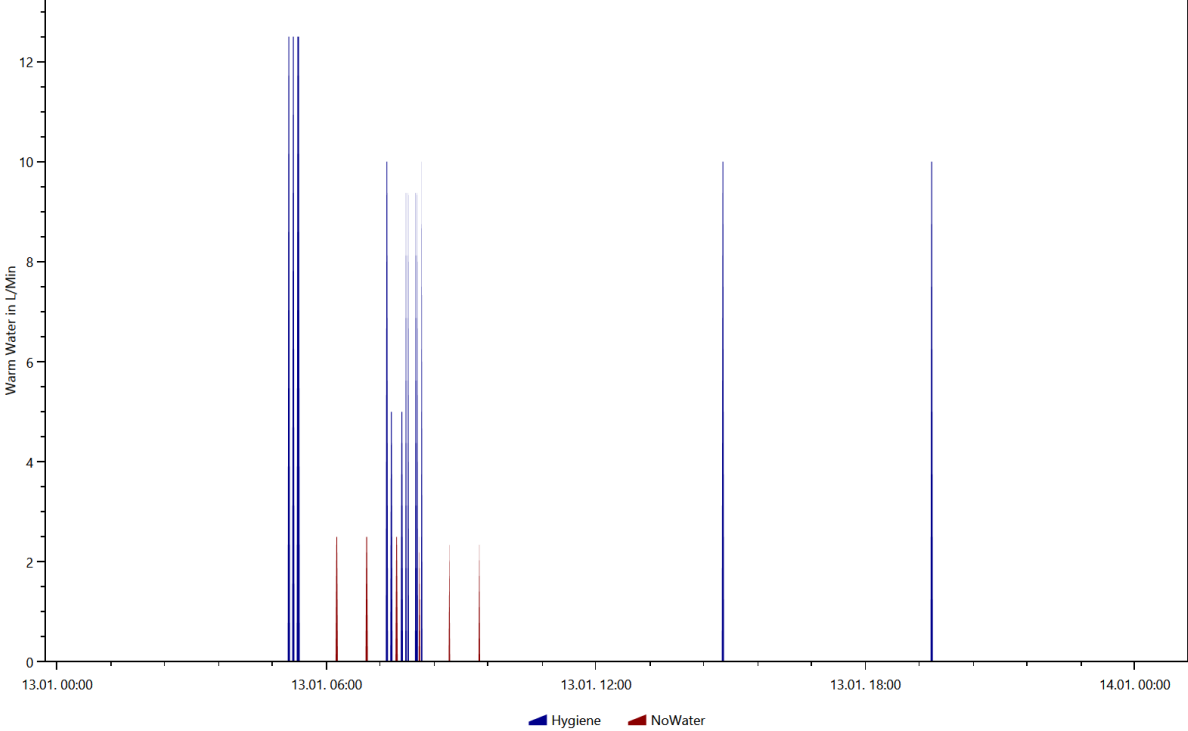
Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.8.1



Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.9.13

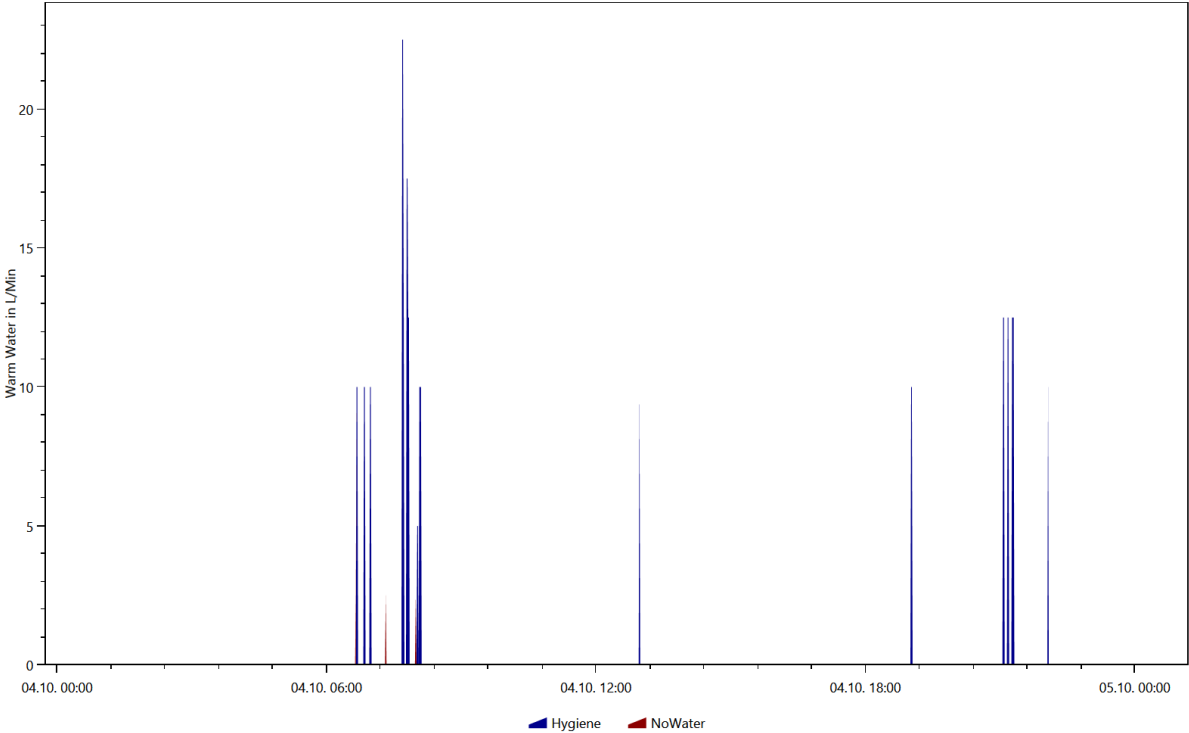


Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.1.13

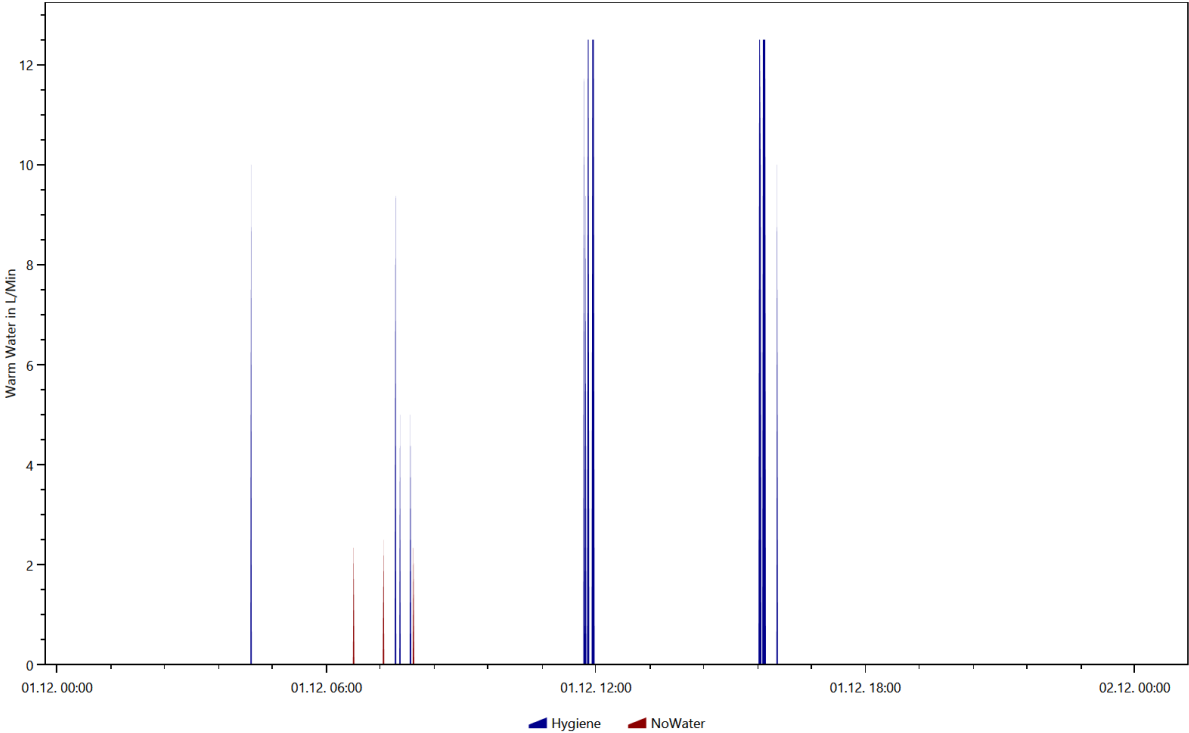




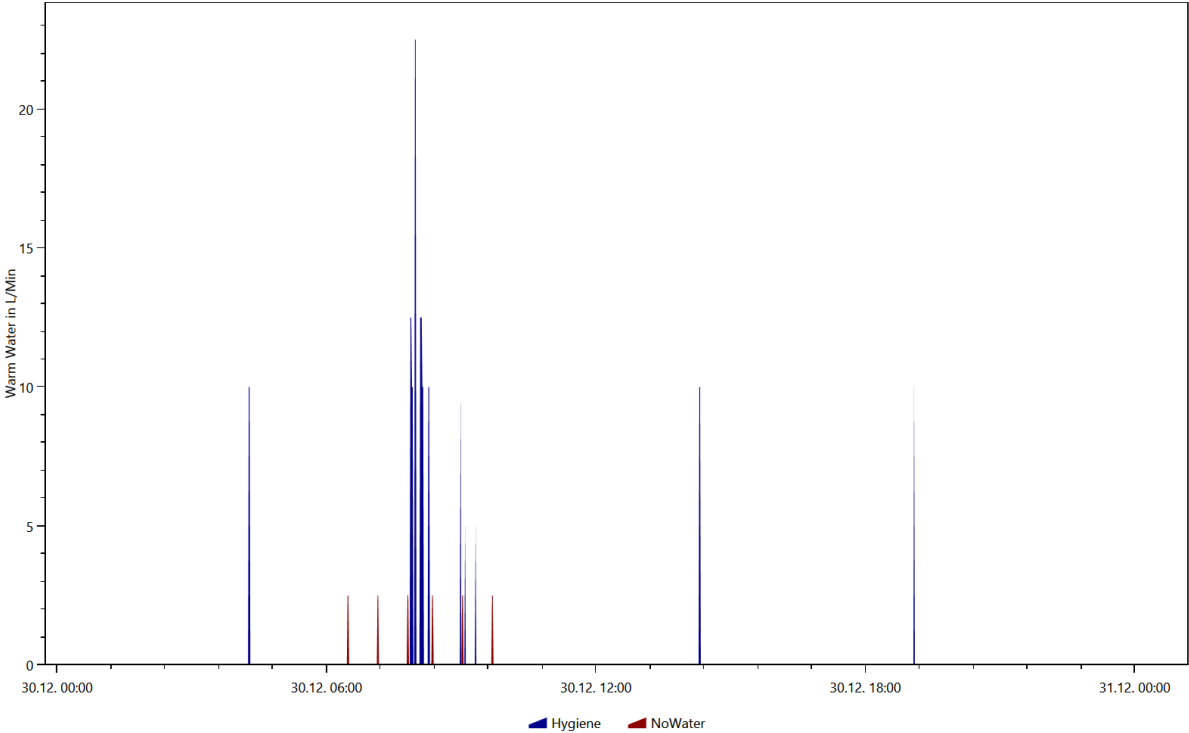
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.10.4



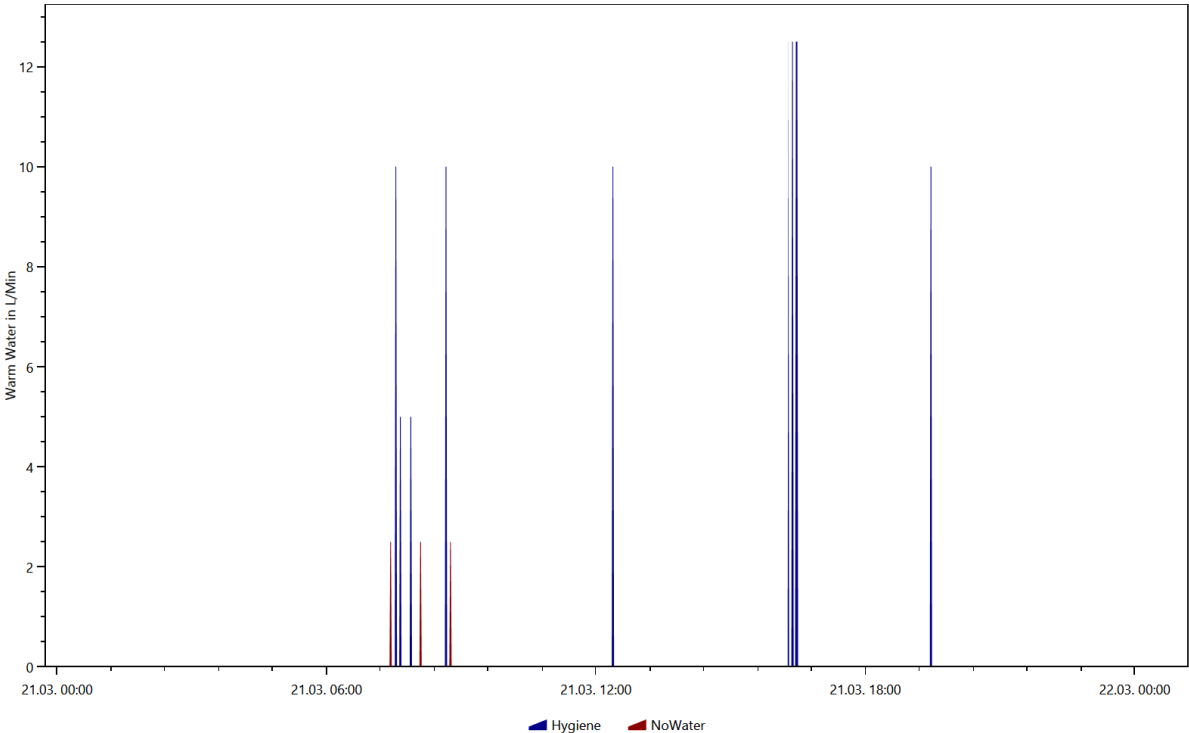
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.12.1



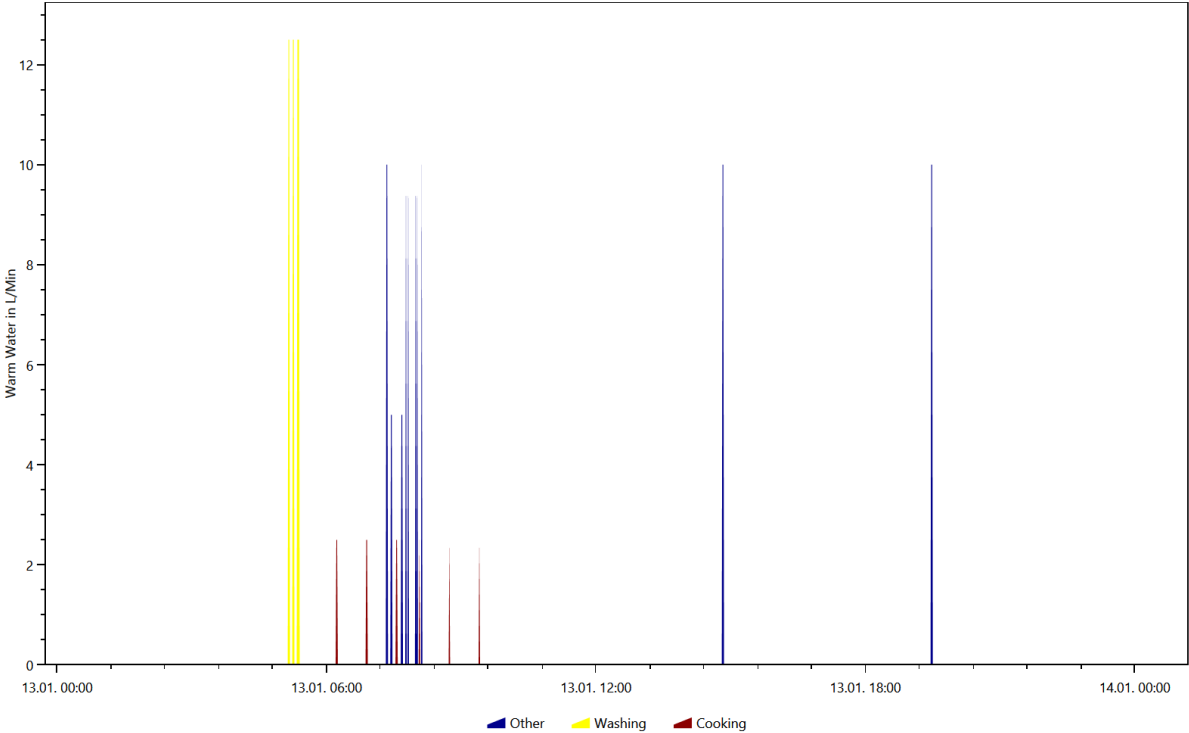
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.12.30



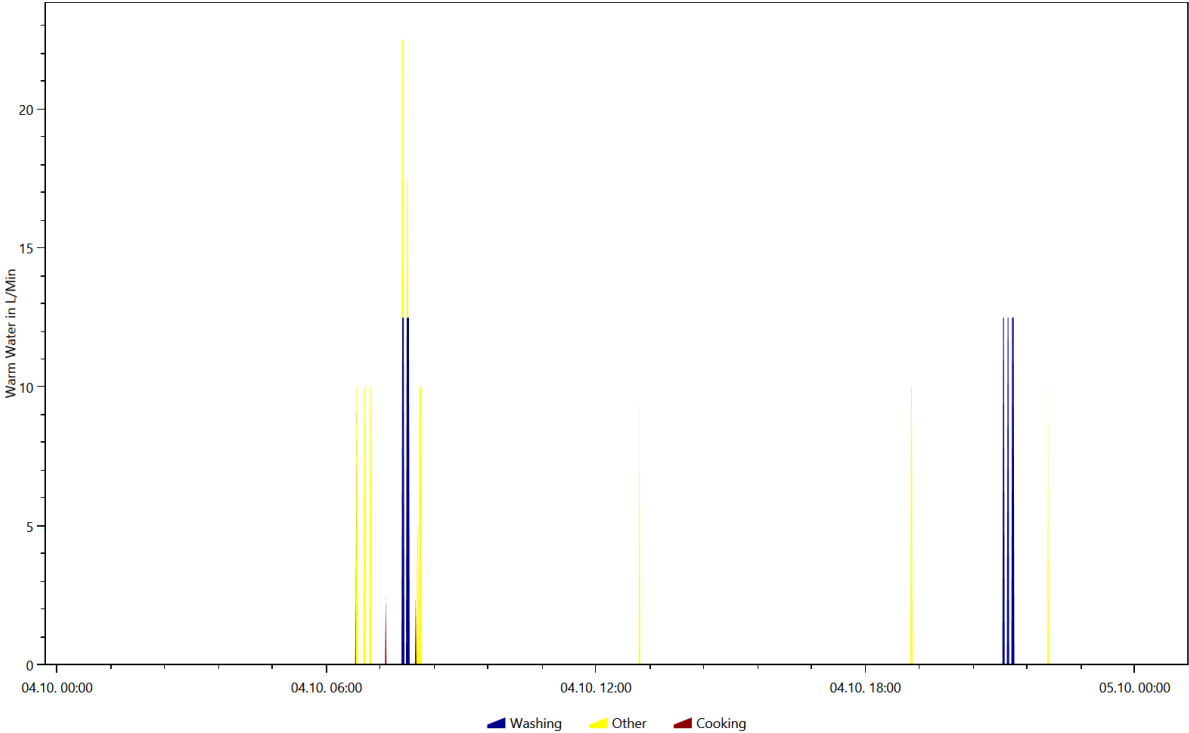
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.3.21



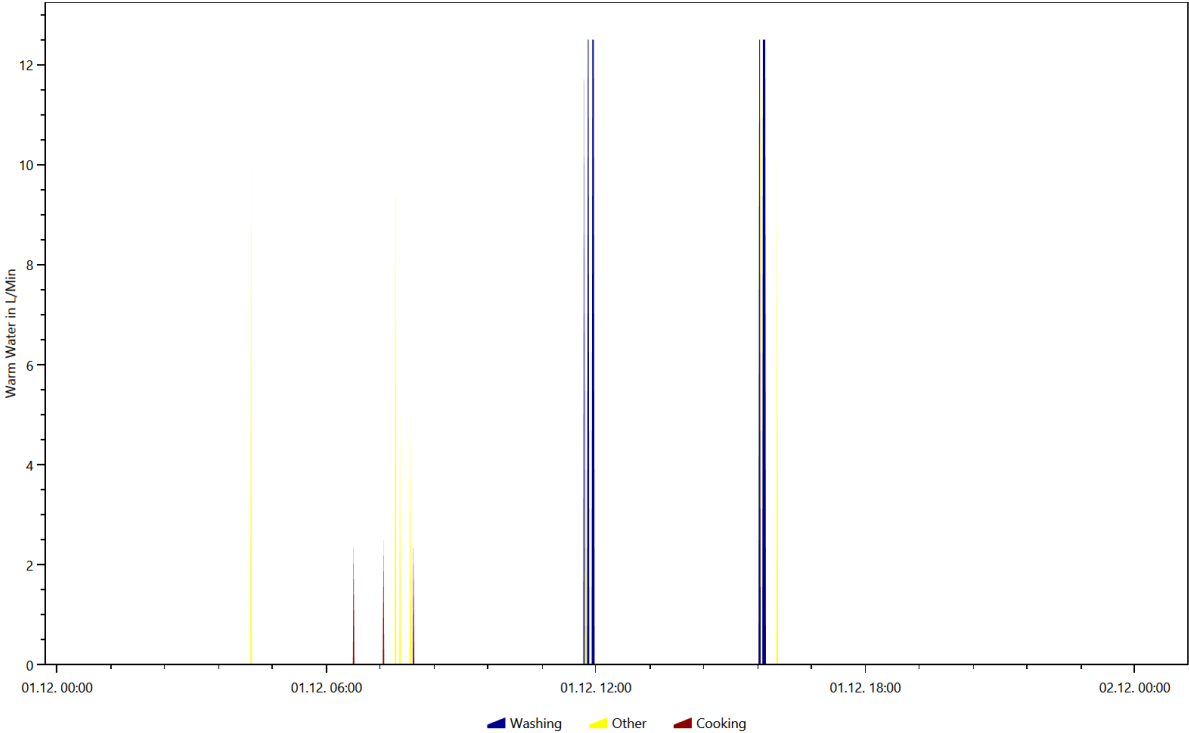
Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.1.13



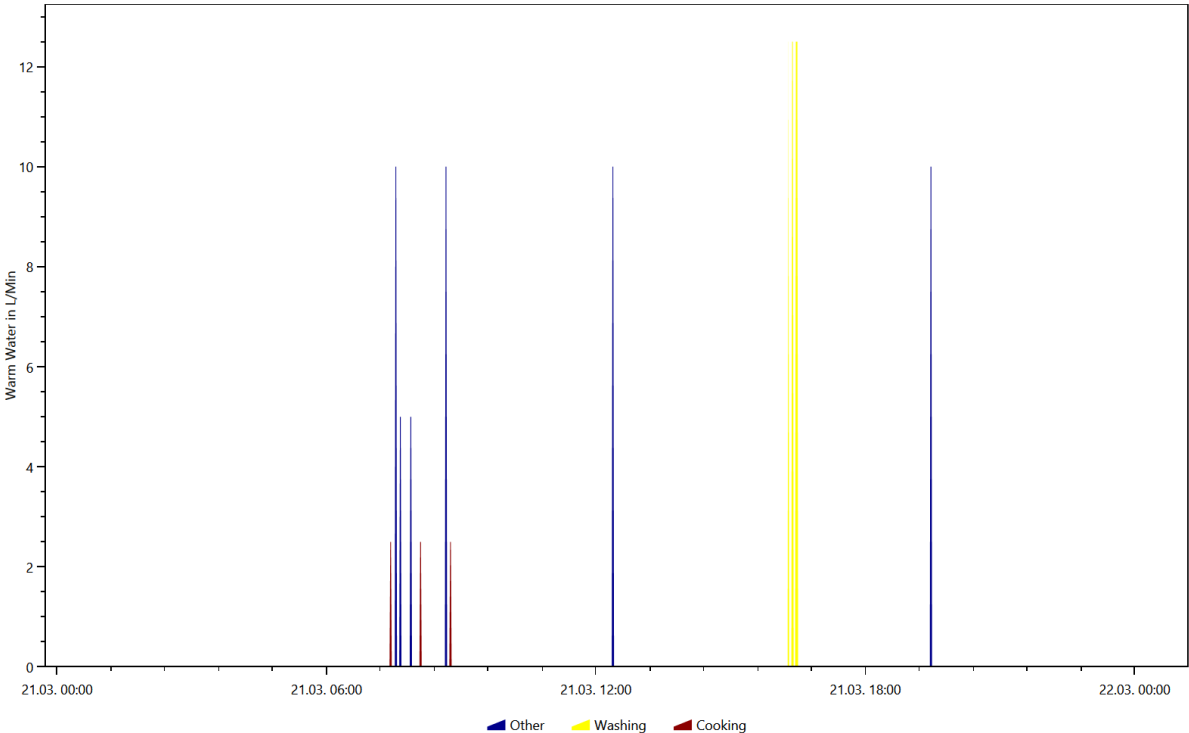
Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.10.4



Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.12.1



Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.3.21

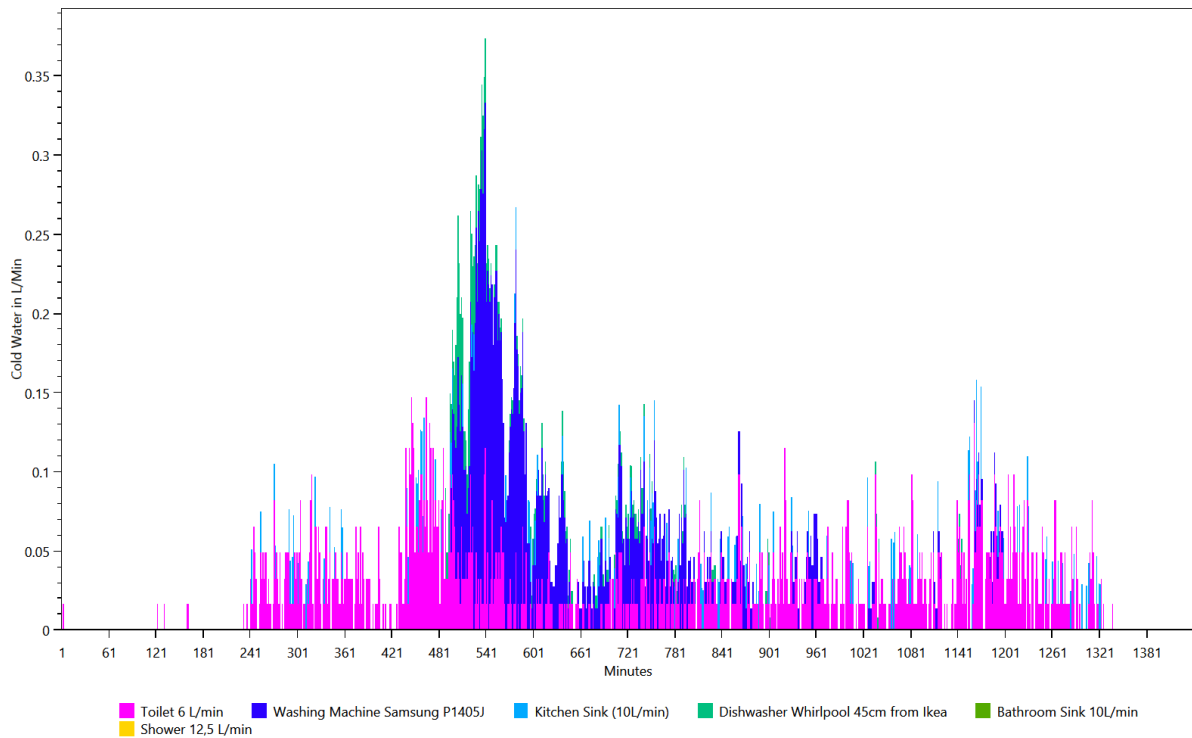


# Overview of the time and power of the use per load type per device

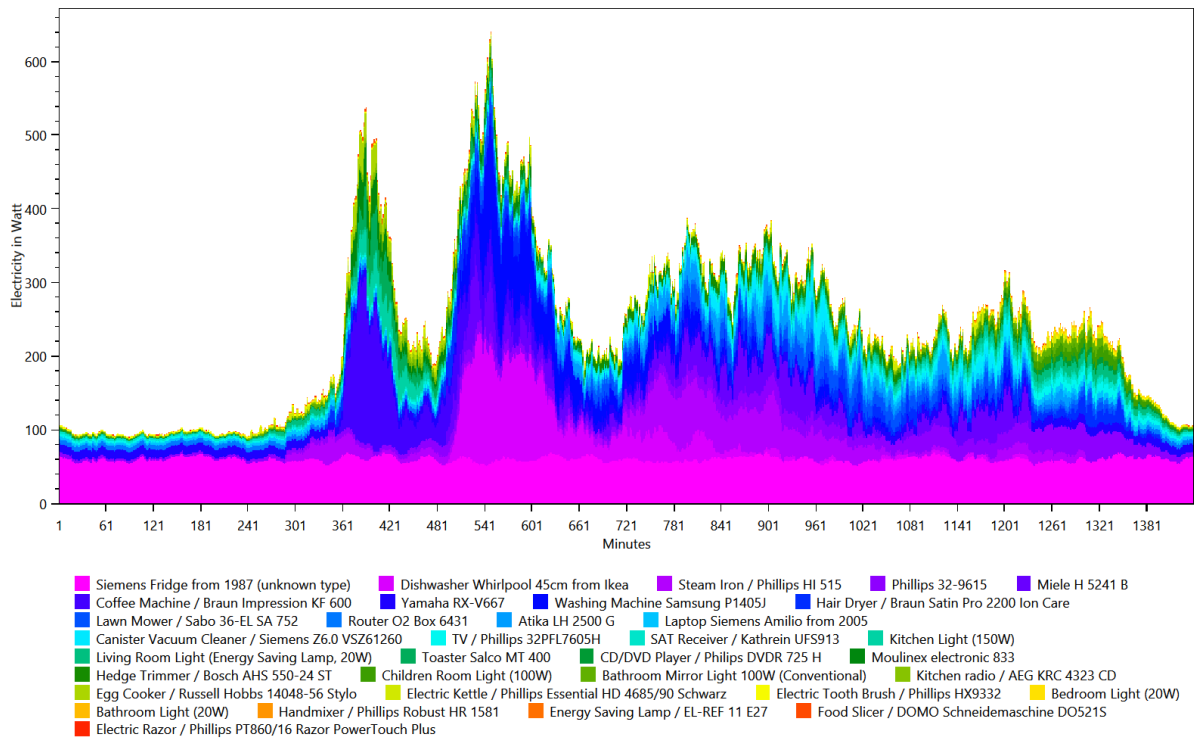
This is made from the files starting with: **TimeOfUseEnergyProfiles**

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

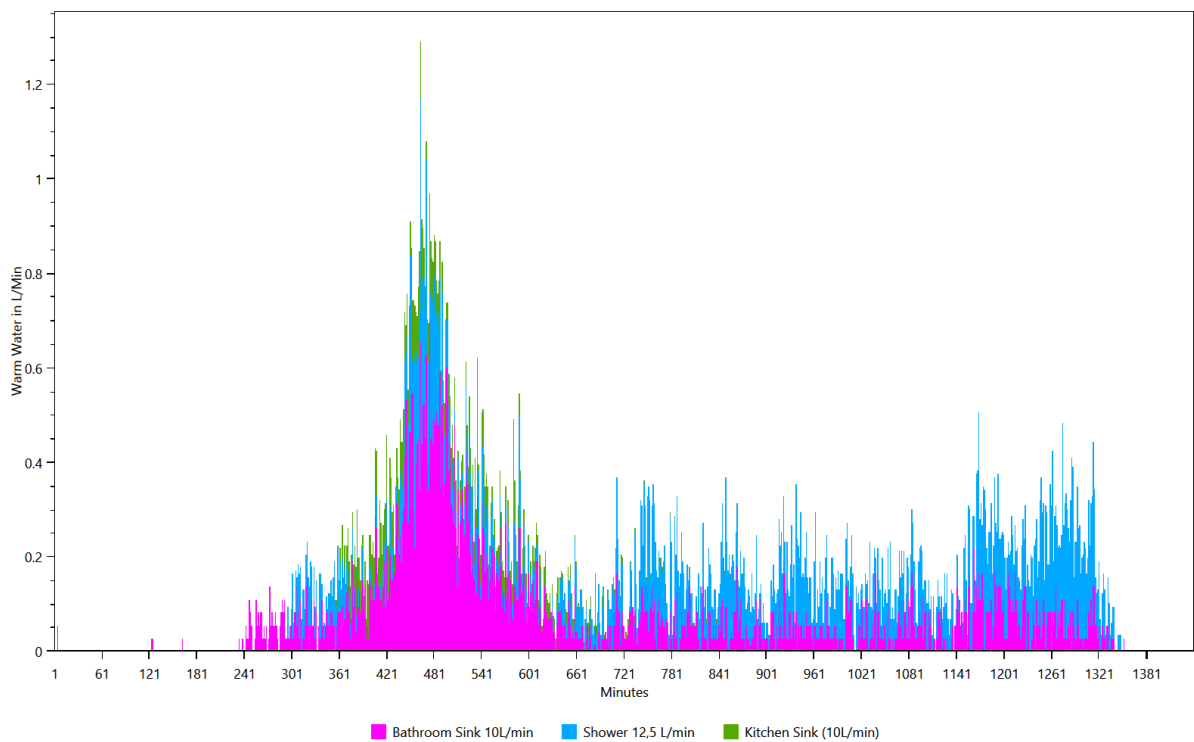
## Cold Water



## Electricity



## Warm Water

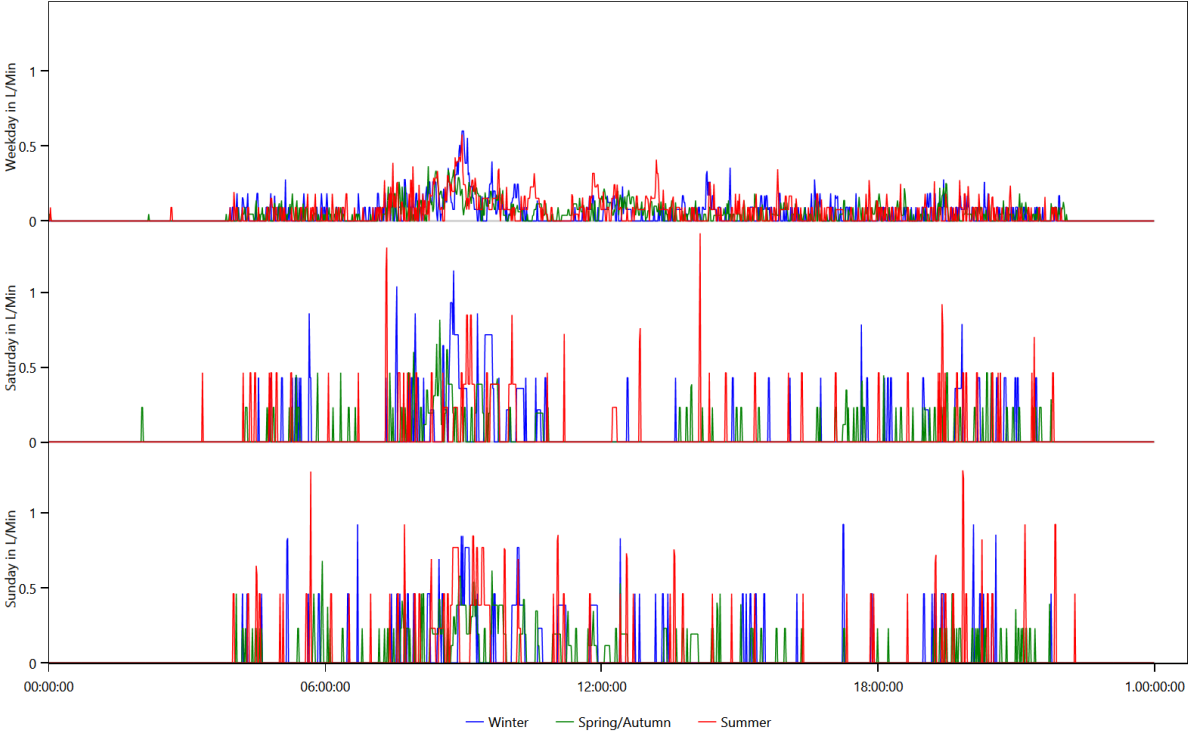


# Energy use per load type during different seasons, split by weekday/saturday/sunday

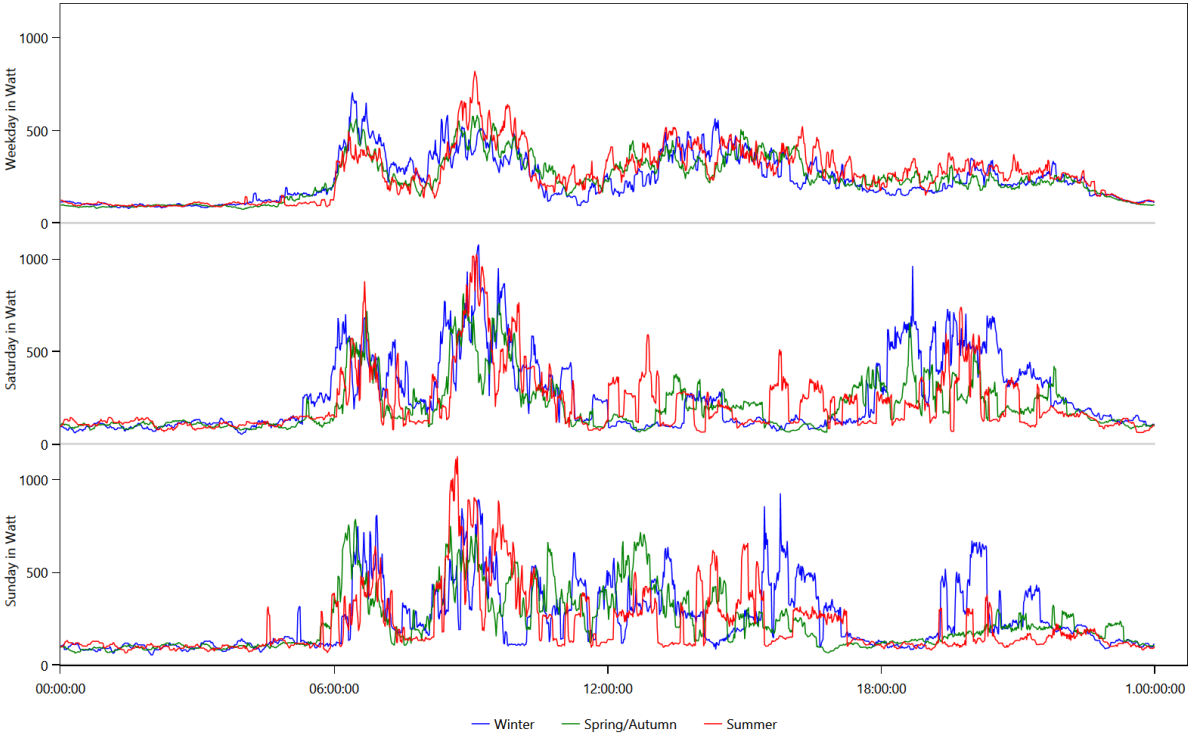
This is made from the files starting with: WeekdayProfiles

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

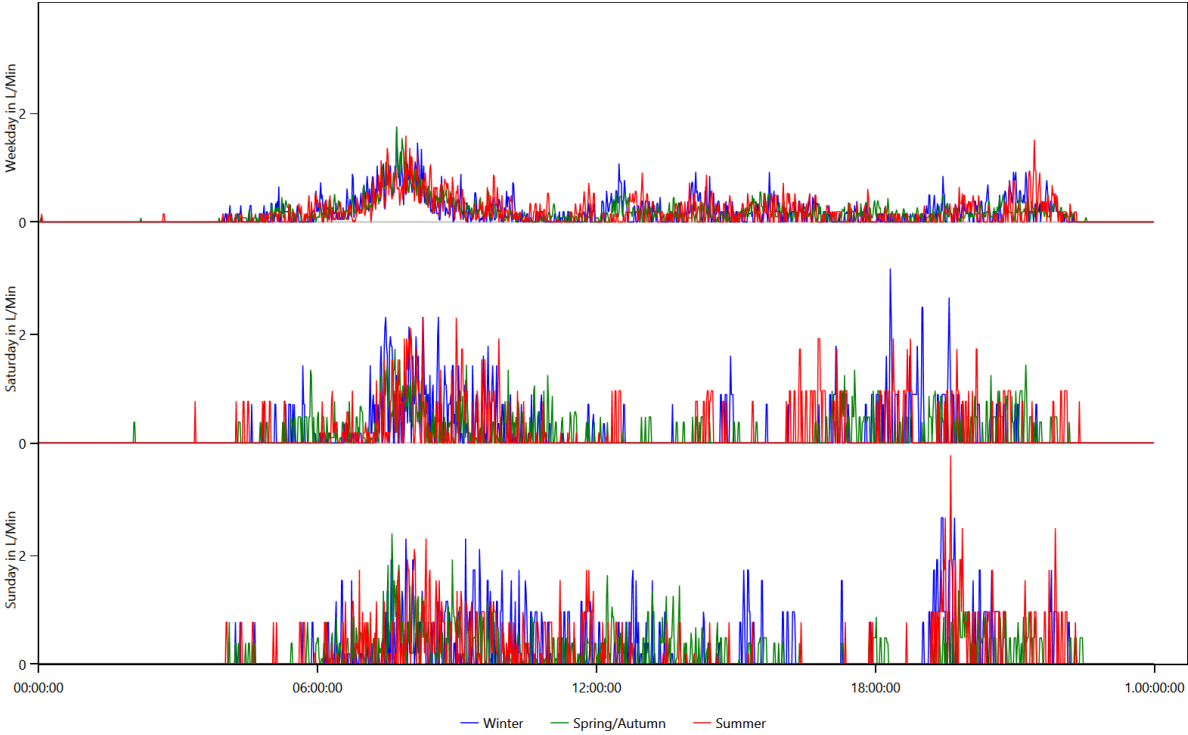
## Cold Water



# Electricity



# Warm Water



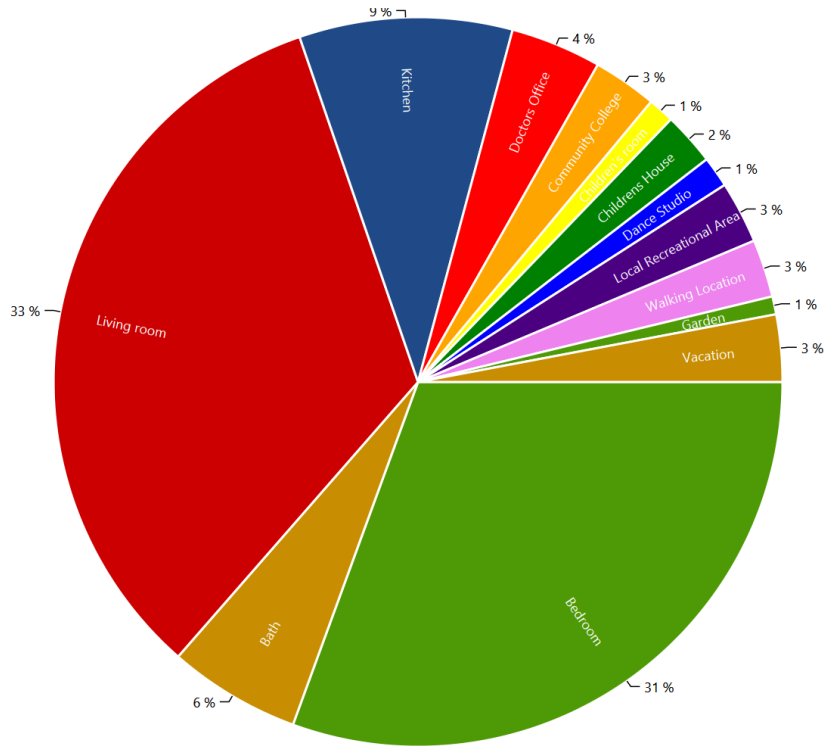


# Location Distribution per Person

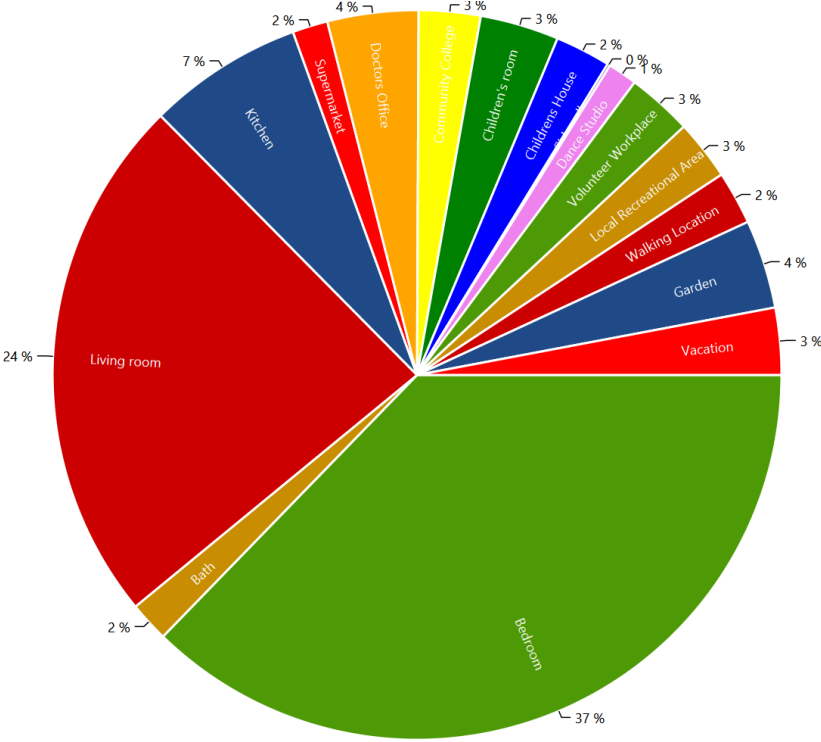
This is made from the files starting with: LocationStatistics

These charts show where the persons spend their time.

CHR58 Ema (68 Female)



CHR58 Nil (71 Male)



# 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

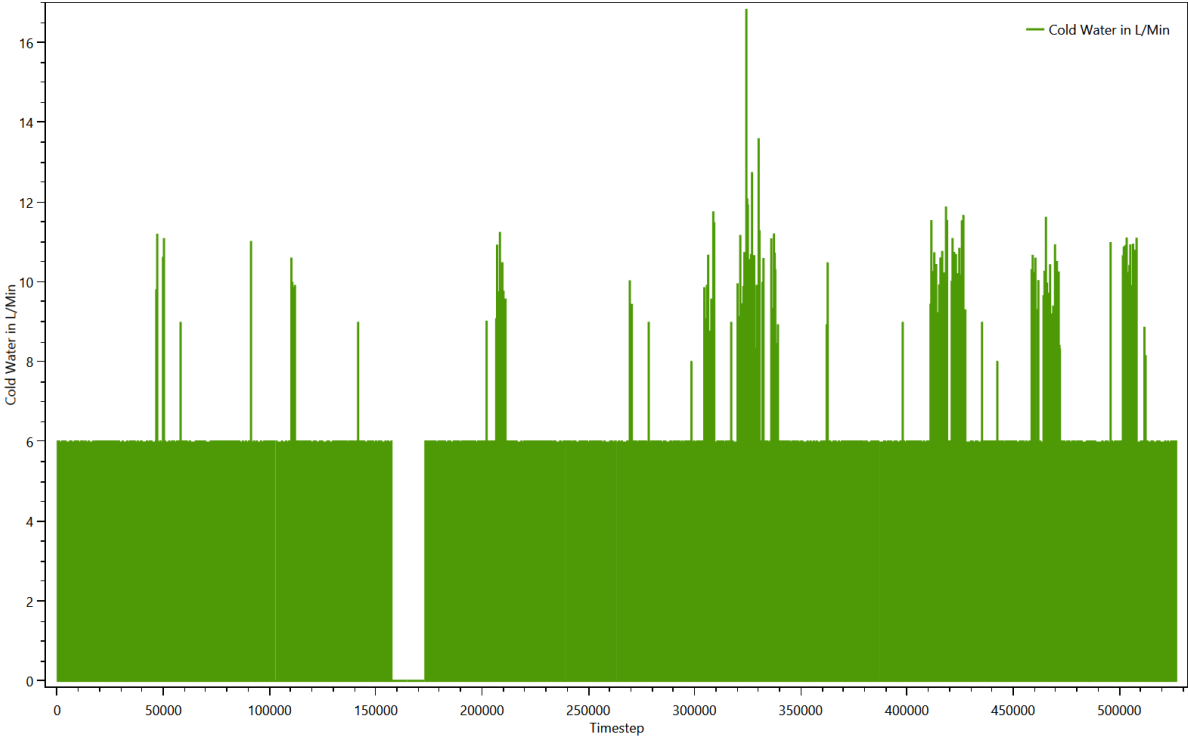
```
Time step;Calendertime;Person;Selected affordance;Affordance Category;Is Sick
0;01.01.2016 00:00;CHR58 Ema (68/Female);sleep bed 02 (06 h);sleep;False;
0;01.01.2016 00:00;CHR58 Nil (71/Male);sleep bed 08 (08 h);sleep;False;
270;01.01.2016 04:30;CHR58 Ema (68/Female);go to the toilet;hygiene;False;
276;01.01.2016 04:36;CHR58 Ema (68/Female);play board games (1 h);Offline Entertainment;False;
349;01.01.2016 05:49;CHR58 Ema (68/Female);rest for 10 min;sleep;False;
361;01.01.2016 06:01;CHR58 Ema (68/Female);take a shower without hair washing (women);hygiene;False;
380;01.01.2016 06:20;CHR58 Nil (71/Male);eat breakfast (1 h);cooking;False;
421;01.01.2016 07:01;CHR58 Ema (68/Female);eat a cooked meal (interrupting) (eat breakfast (1
h));cooking;False;
449;01.01.2016 07:29;CHR58 Ema (68/Female);send email from the laptop (2 h);Active Entertainment
(Computer, Internet etc);False;
449;01.01.2016 07:29;CHR58 Nil (71/Male);go shopping for food in the supermarket (1.5 h);shopping;False;
545;01.01.2016 09:05;CHR58 Nil (71/Male);go to the toilet;hygiene;False;
550;01.01.2016 09:10;CHR58 Nil (71/Male);go to doctor;work;False;
582;01.01.2016 09:42;CHR58 Ema (68/Female);do laundry at 30°C (by variable);cleaning;False;
598;01.01.2016 09:58;CHR58 Ema (68/Female);go together to the doctor (go to doctor);work;False;
813;01.01.2016 13:33;CHR58 Ema (68/Female);hang up laundry outside;cleaning;False;
813;01.01.2016 13:33;CHR58 Nil (71/Male);take a nap;sleep;False;
846;01.01.2016 14:06;CHR58 Ema (68/Female);go to the toilet;hygiene;False;
852;01.01.2016 14:12;CHR58 Ema (68/Female);take a nap;sleep;False;
864;01.01.2016 14:24;CHR58 Nil (71/Male);play board games (1 h);Offline Entertainment;False;
```

# Sum Profiles

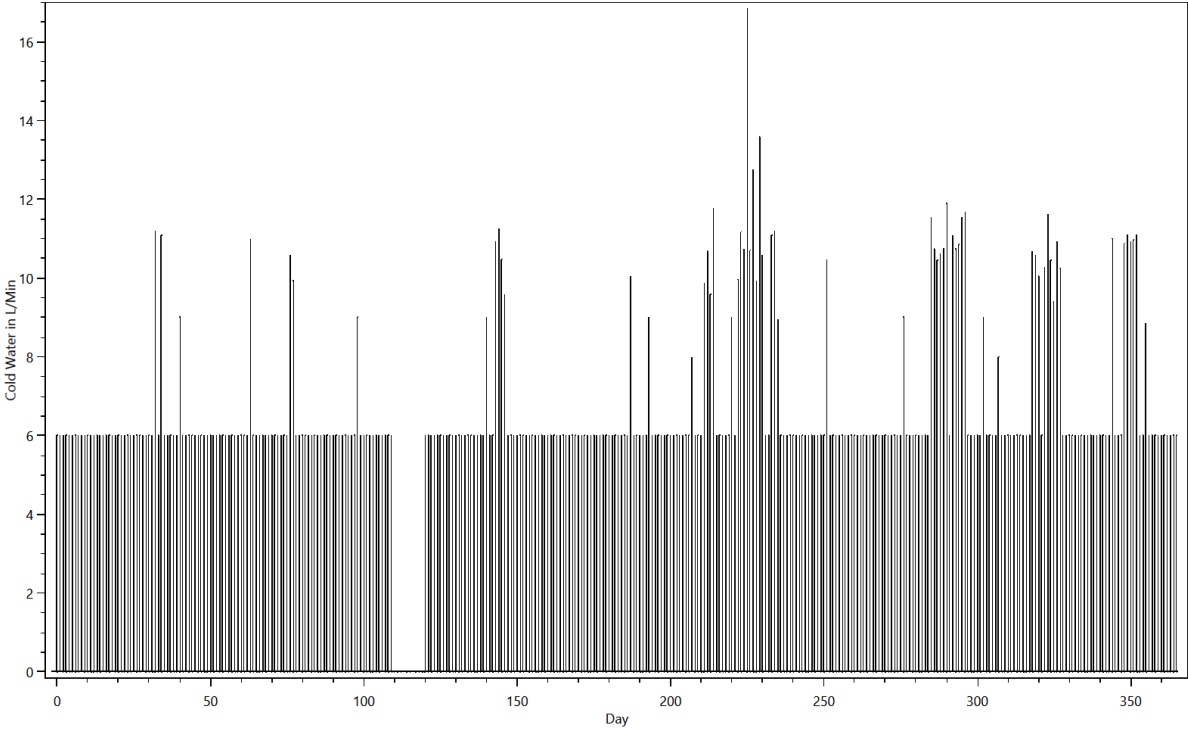
This is made from the files starting with: SumProfiles

This shows the energy use during the simulation.

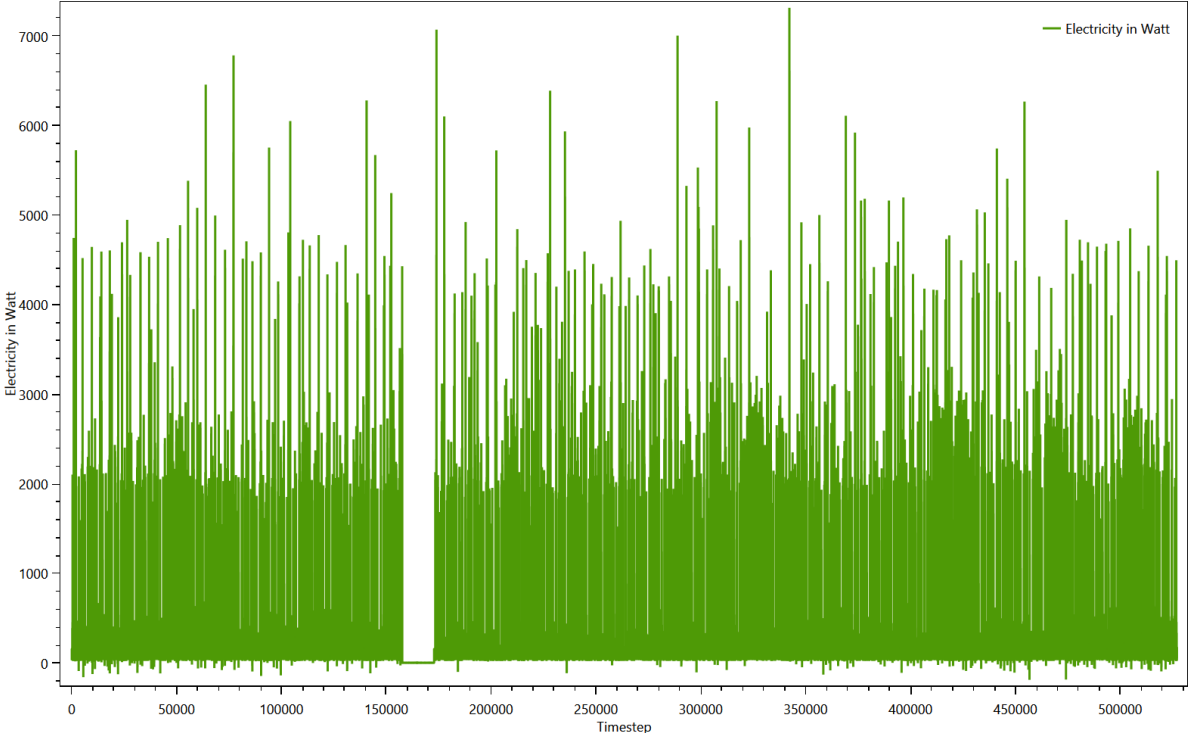
Summed up curve for Cold Water from SumProfiles.Cold Water.png



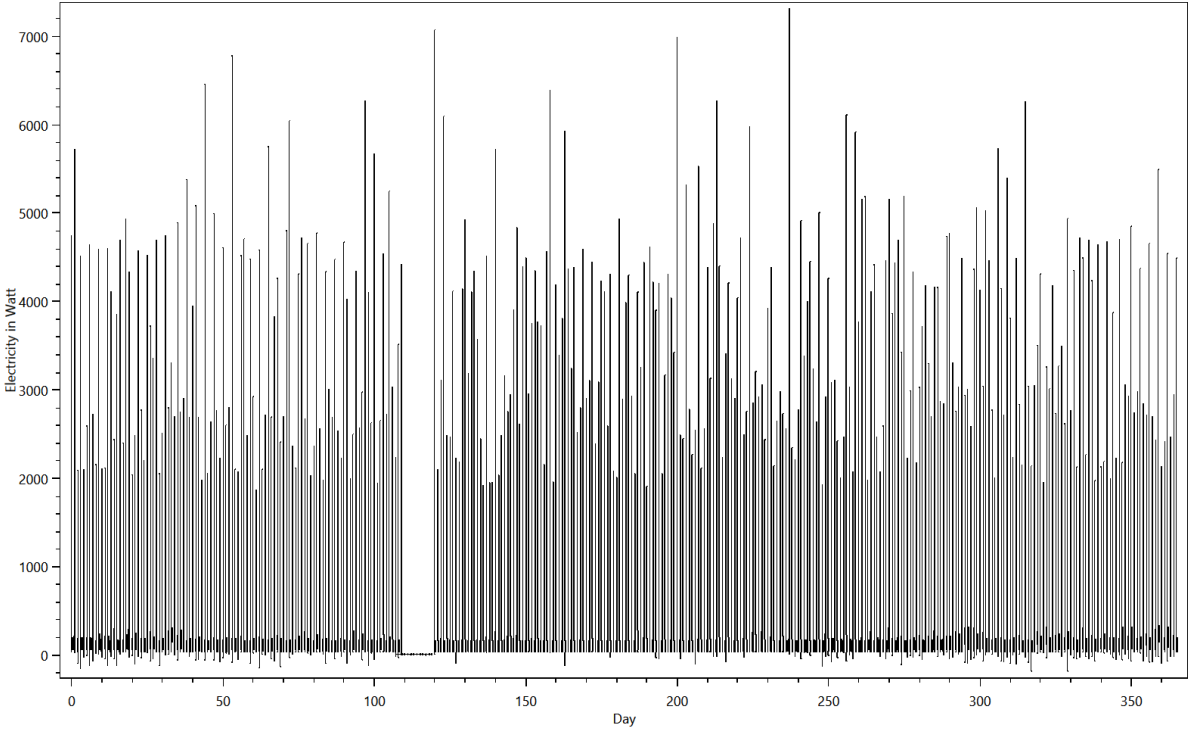
Summed up curve for Cold WaterMinMax from SumProfiles.Cold WaterMinMax.png



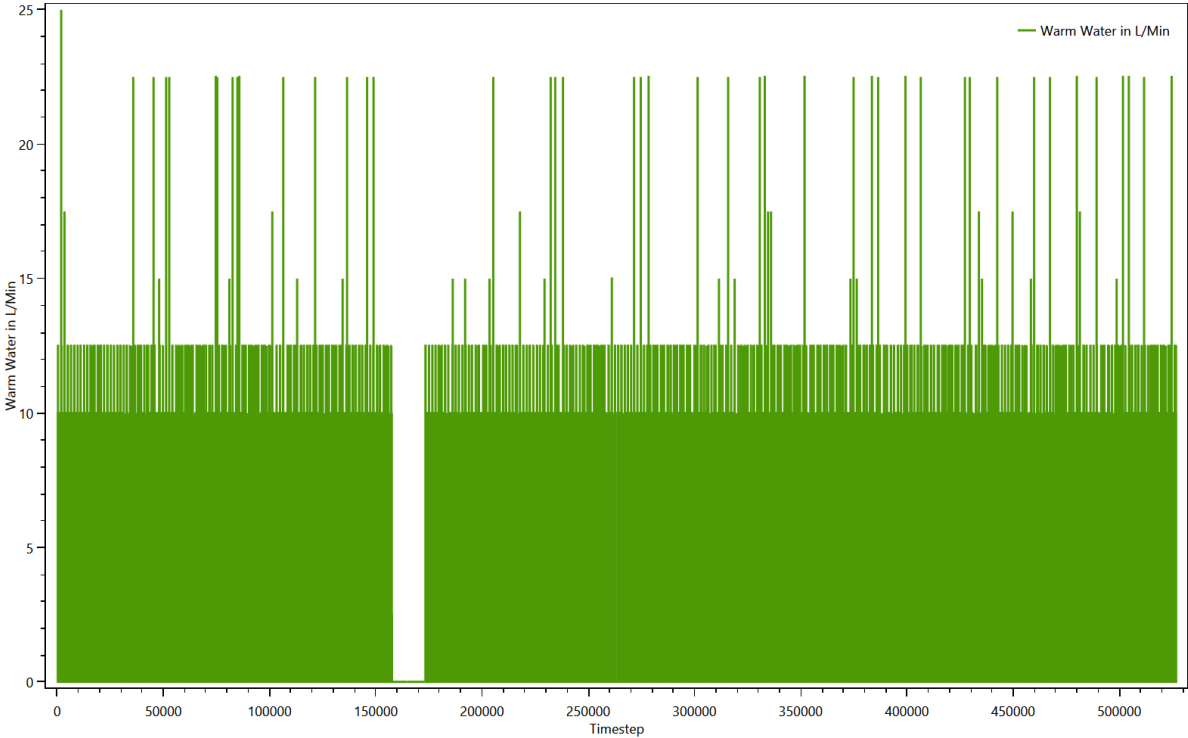
Summed up curve for Electricity from SumProfiles.Electricity.png



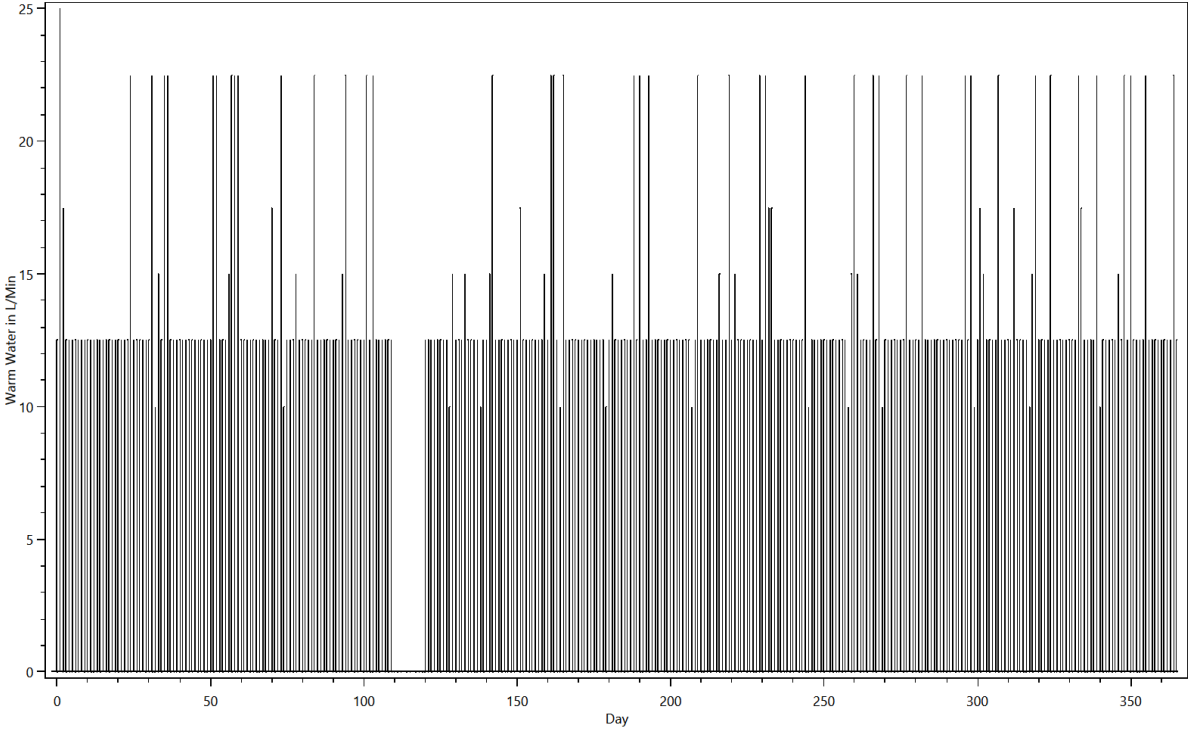
Summed up curve for ElectricityMinMax from SumProfiles.ElectricityMinMax..png



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.CHR58 Retired Couple, no work, no cooking 0.txt

Device;Load Type;Profile;Number of Activations

Atika LH 2500 G;Electricity;0 h 15 min 100% [Synthetic];82

Bathroom Light (20W);Electricity;Bath - light [Synthetic for Light Device];751

Bathroom Mirror Light 100W (Conventional);Electricity;Bath - light [Synthetic for Light Device];751

Bathroom Sink 10L/min;Warm Water;0 h 01 min 100% [Synthetic];2473

Bathroom Sink 10L/min;Warm Water;0 h 01 min 50% [Synthetic];488

Bed 2;None;06 h 0 min 100% [Synthetic];356

Bed 8;None;08 h 0 min 100% [Synthetic];355

Bedroom Light (20W);Electricity;Bedroom - light [Synthetic for Light Device];565

Board Games;None;01 h 0 min 100% [Synthetic];193

Book;None;01 h 0 min 100% [Synthetic];29

CD/DVD Player / Philips DVDR 725 H;Electricity;01 h 30 min 100% [Synthetic];141

CD/DVD Player / Philips DVDR 725 H;Electricity;02 h 0 min 100% [Synthetic];147

CD/DVD Player / Philips DVDR 725 H;Electricity;Standby TV / Receiver 1 h 0 min 3% [Synthetic];8516

Canister Vacuum Cleaner / Siemens Z6.0 VSZ61260;Electricity;0 h 30 min 100% [Synthetic];73

Chair;None;0 h 10 min 100% [Synthetic];1046

Children;None;06 h 0 min 100% [Synthetic];60

Children Room Light (100W);Electricity;Children's room - light [Synthetic for Light Device];197

Cleanser;None;01 h 0 min 100% [Synthetic];49

Cloth Drying Rack;None;0 h 20 min 100% [Synthetic];147

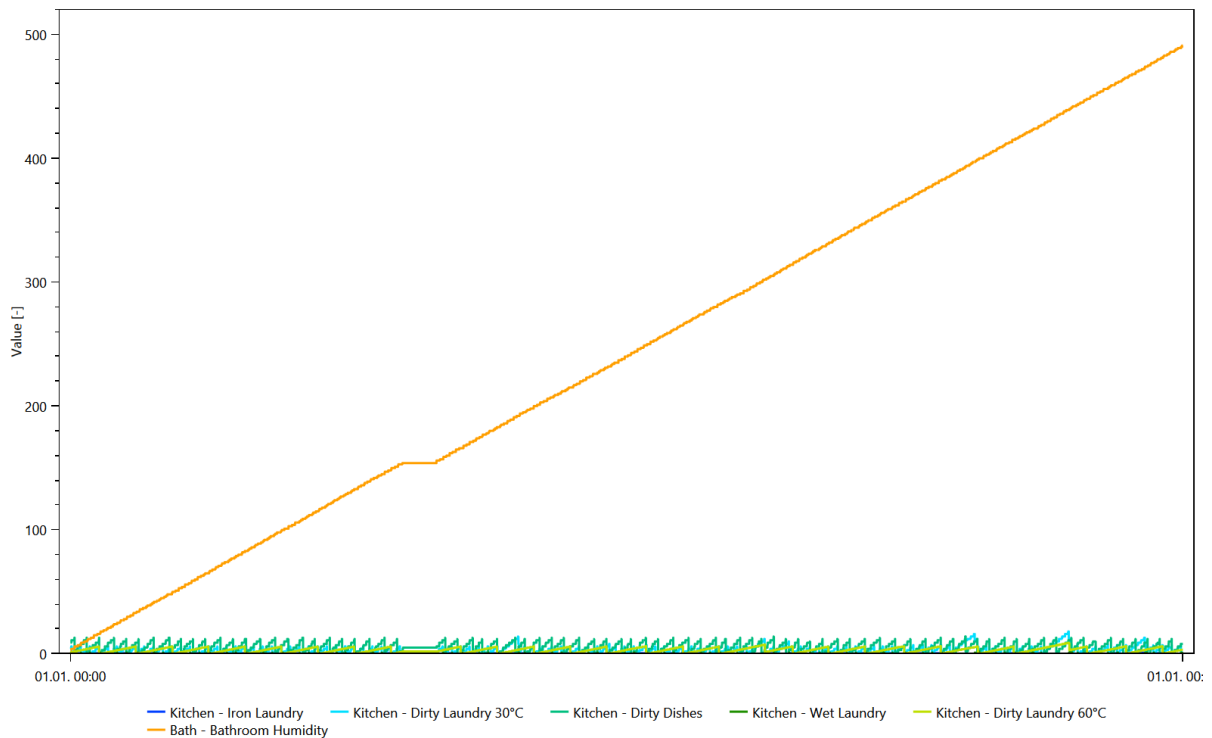


# Variables

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

