

# **Overview of the results of the household CHR27 Family both at work, 2 children 0**

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

Energy Intensity: Random

Seed 3347

LoadProfileGenerator 5.8.0.16019

by Noah Pflugradt

<http://www.loadprofilegenerator.de>

Rendering date: 16.12.2016 09:20:44

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# Totals

## Totals for each Loadtype

Load Type	Value	Unit
Cold Water	39966.53	L
Electricity	4312.30	kWh
Warm Water	76347.50	L

## Totals for each Loadtype per Day

Load Type	Value	Unit
Cold Water	109.20	L
Electricity	11.78	kWh
Warm Water	208.60	L

## Minimum and Maximum for each Loadtype

Household	Minimum	Maximum	Unit
Cold Water	0.00	16.84	L/Min
Electricity	0.00	11762.96	Watt
Warm Water	0.00	12.50	L/Min

## Totals for each Loadtype per Person

Load Type	Value	Unit
Cold Water	9991.63	L
Electricity	1078.08	kWh

Warm Water	19086.88	L
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### Totals for each Loadtype per Person per Day

Load Type	Value	Unit
Cold Water	27.30	L
Electricity	2.95	kWh
Warm Water	52.15	L

## Persons

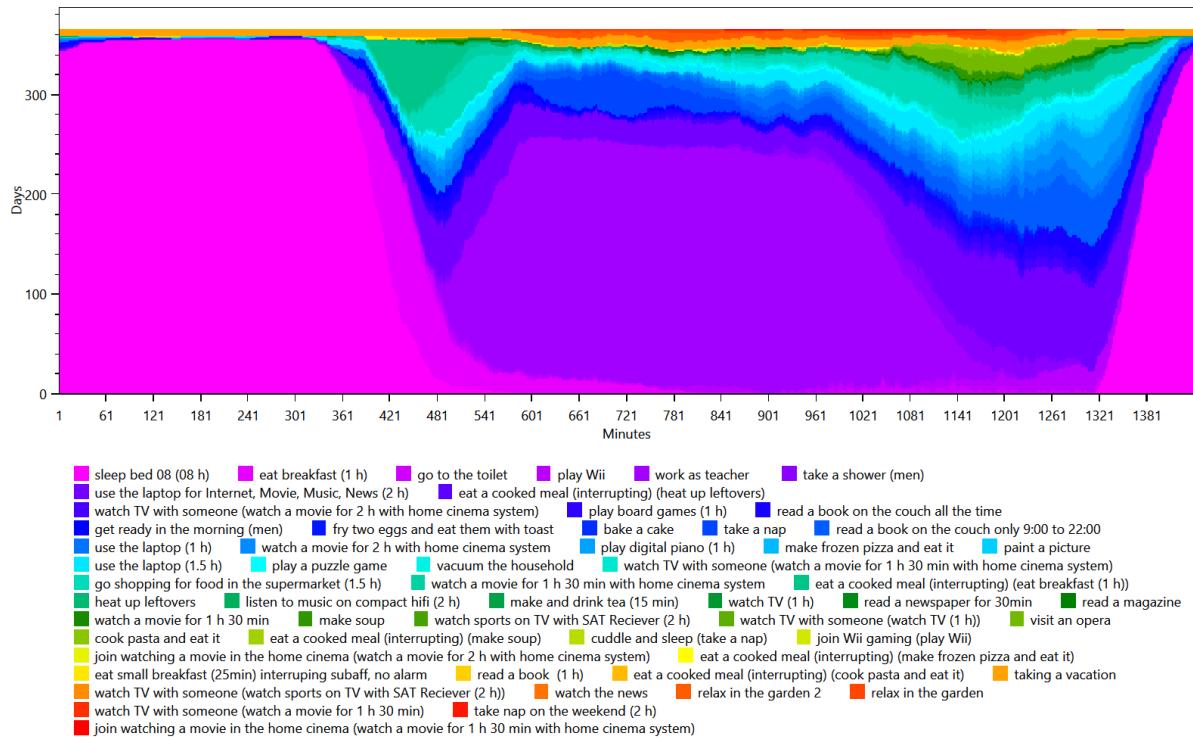
- HHO
  - CHR27 Emil (43/Male)(43/Male)
  - CHR27 Laura (9/Female)(9/Female)
  - CHR27 Melanie (39/Female)(39/Female)
  - CHR27 Tobias (13/Male)(13/Male)

# Activity Frequency Charts

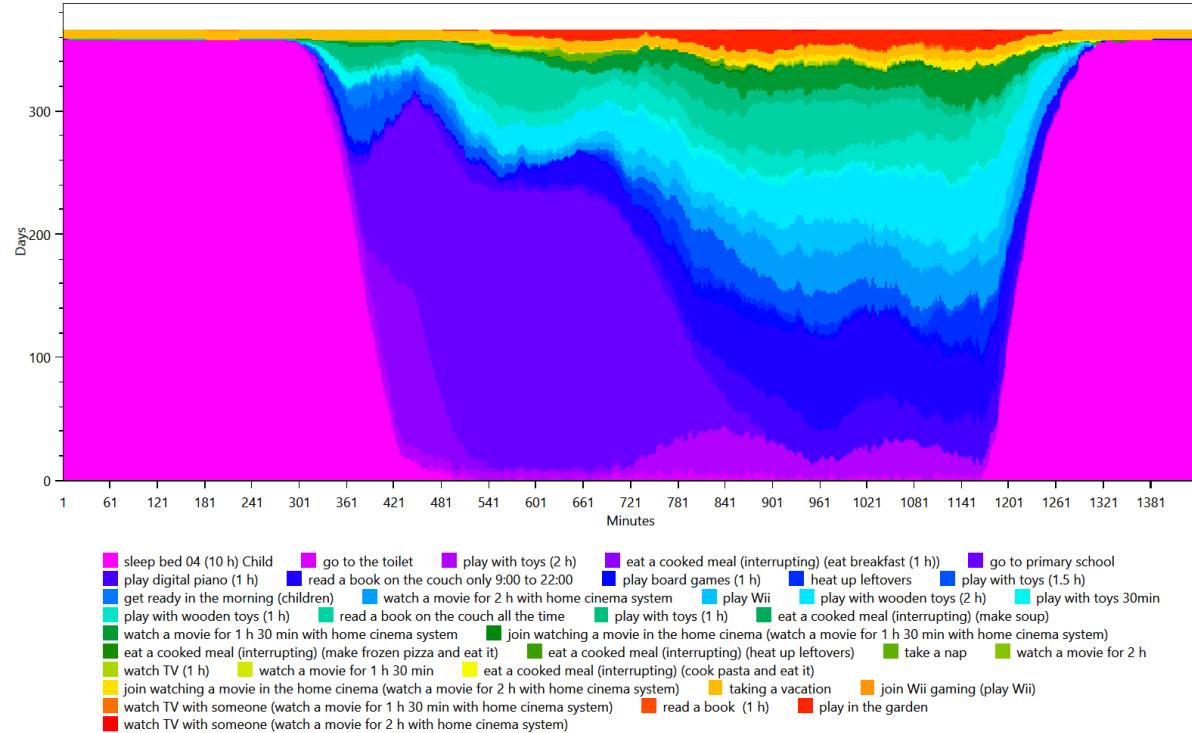
This is made from the files starting with: ActivityFrequenciesPerMinute

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.

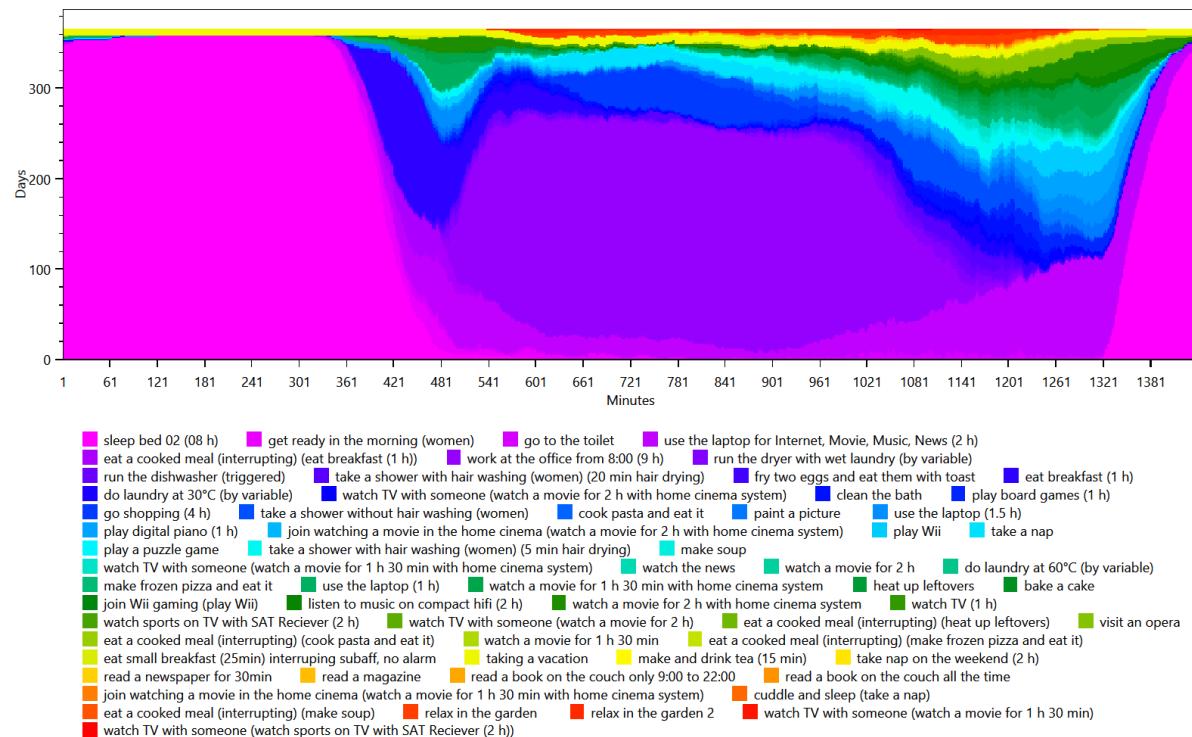
HH0 - CHR27 Emil (43 Male)



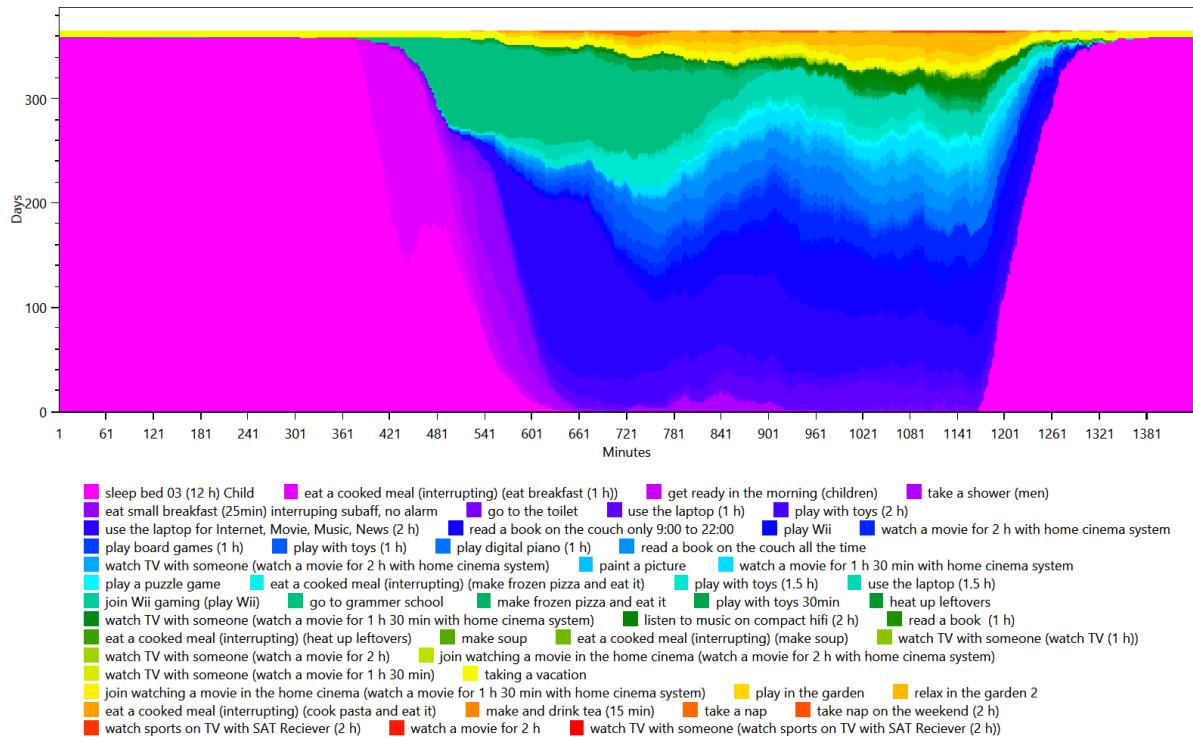
## HH0 - CHR27 Laura (9 Female)



## HH0 - CHR27 Melanie (39 Female)



## HH0 - CHR27 Tobias (13 Male)

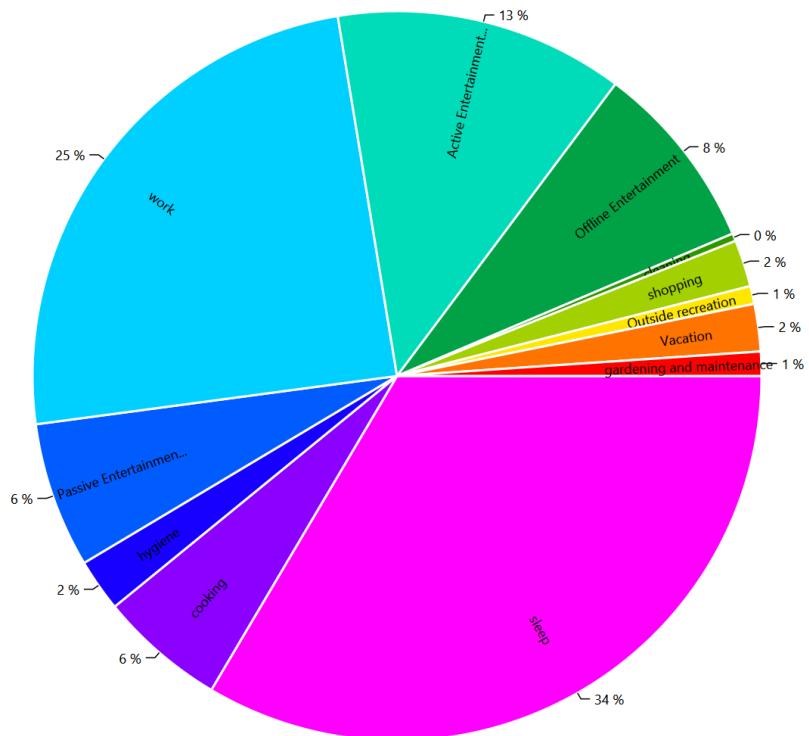


# Activity Distribution per Person

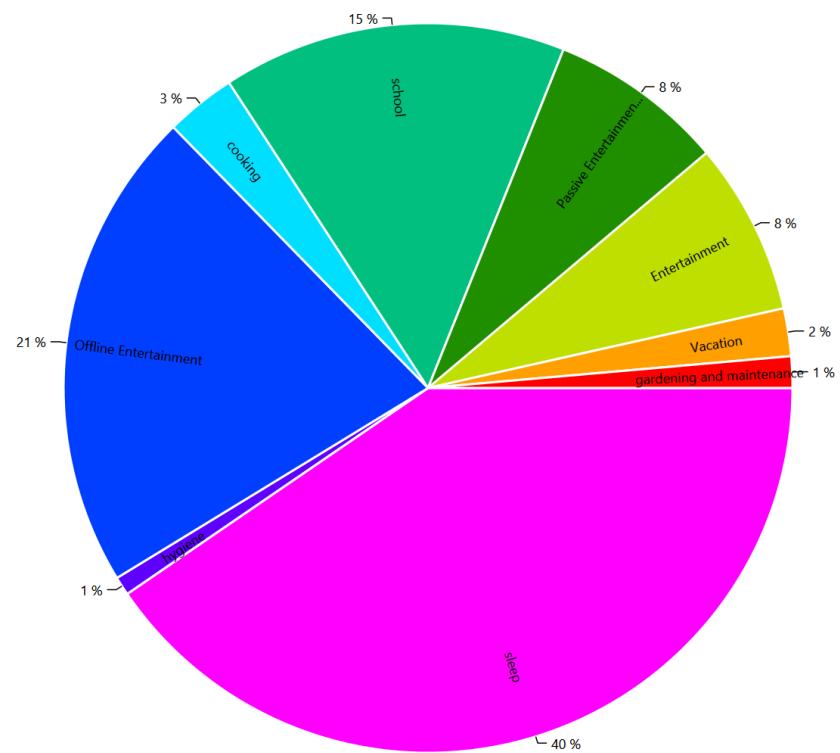
This is made from the files starting with: ActivityPercentage

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

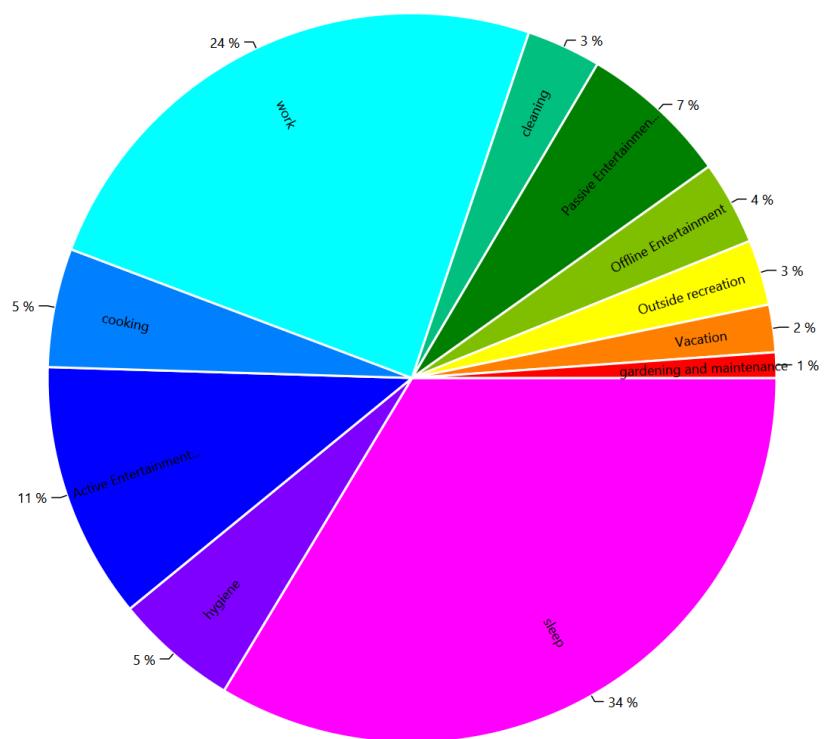
HH0 - CHR27 Emil (43 Male)



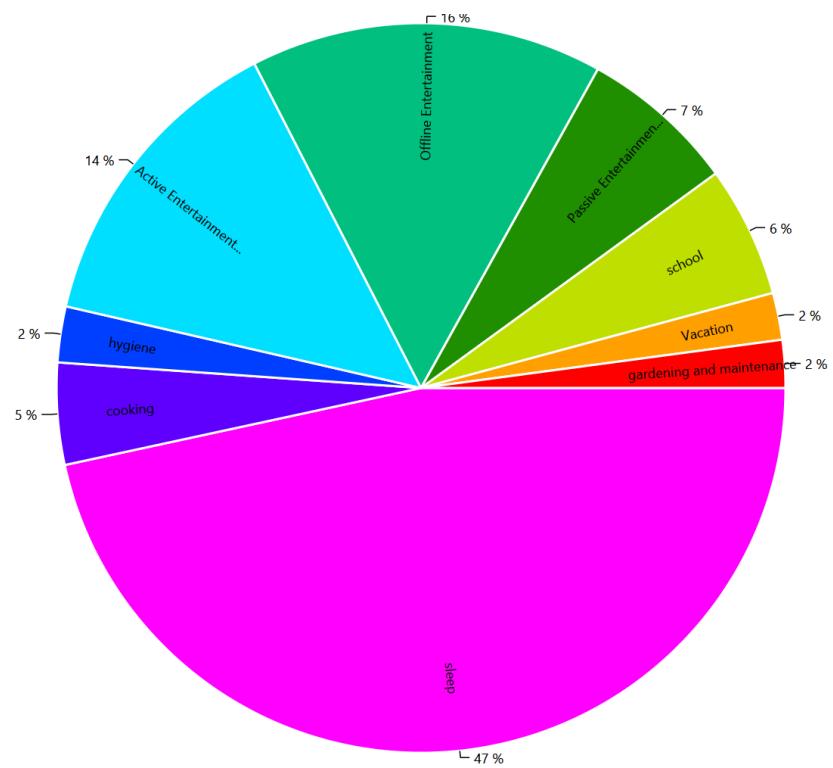
HH0 - CHR27 Laura (9 Female)



HH0 - CHR27 Melanie (39 Female)



## HH0 - CHR27 Tobias (13 Male)

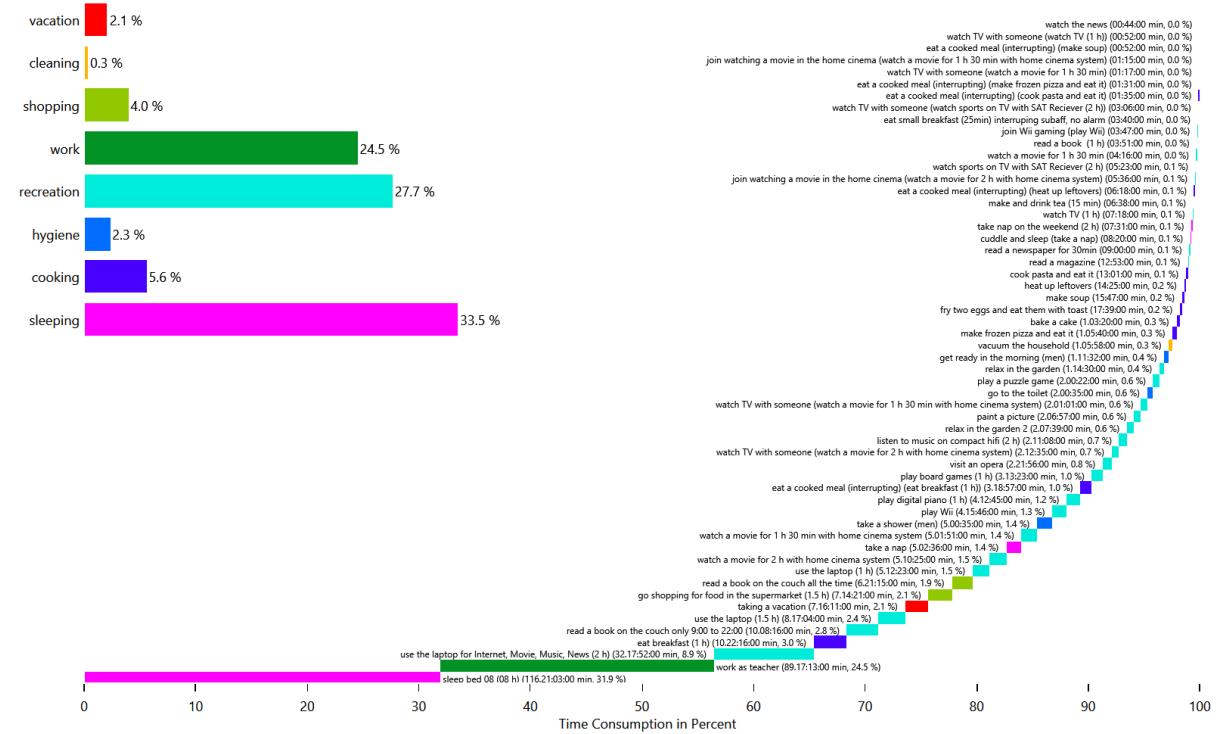


# Time Use per Person per Affordance Per Person

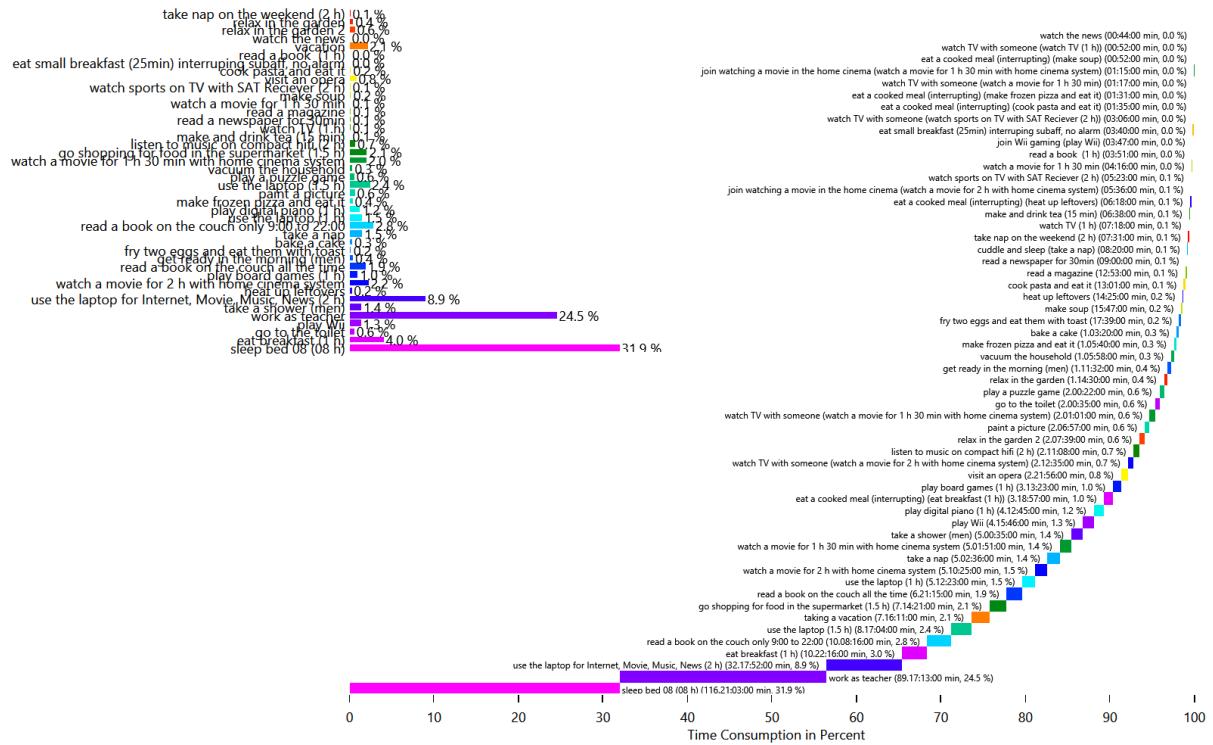
This is made from the files starting with: AffordanceTimeUse

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.

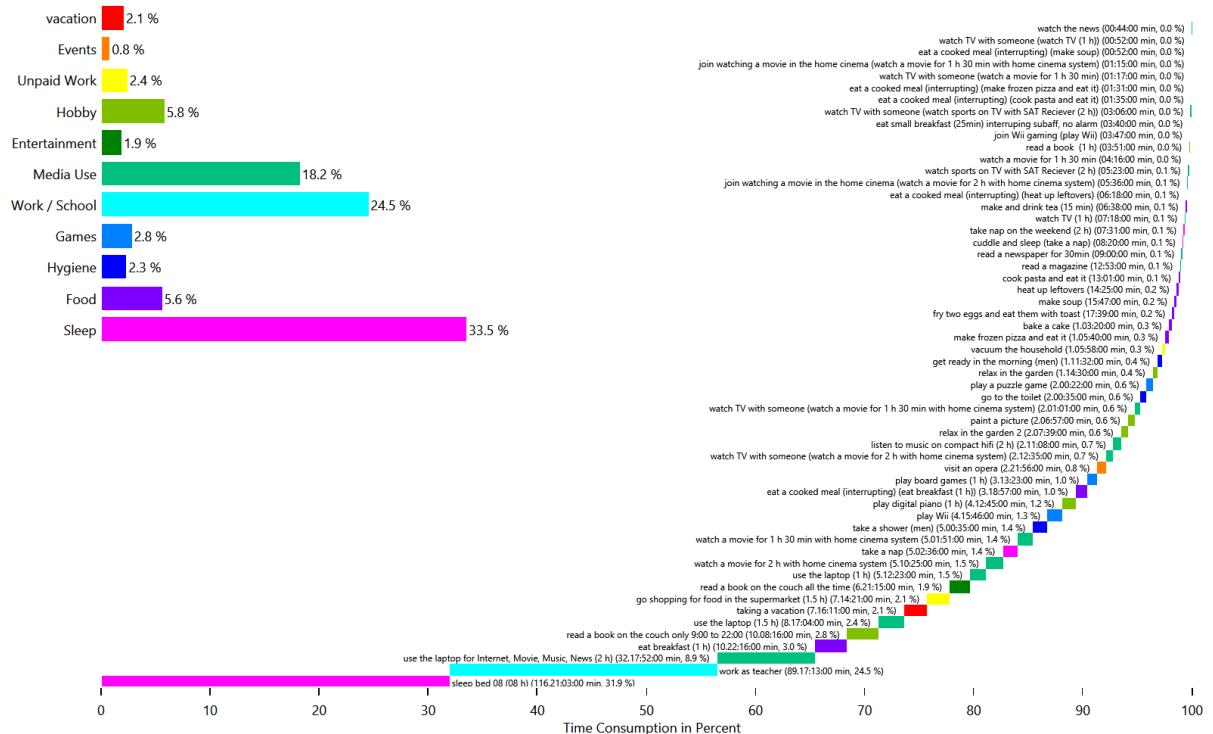
HH0 - CHR27 Emil (43 Male)



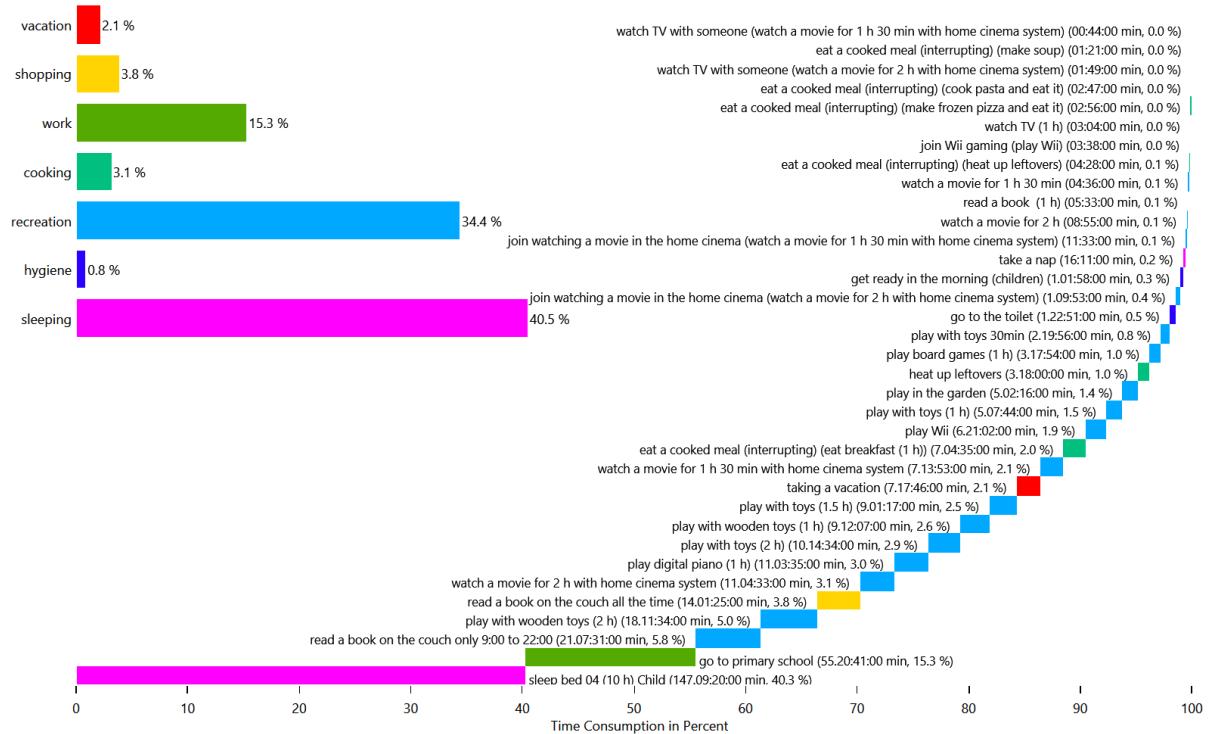
HH0 - CHR27 Emil (43 Male)



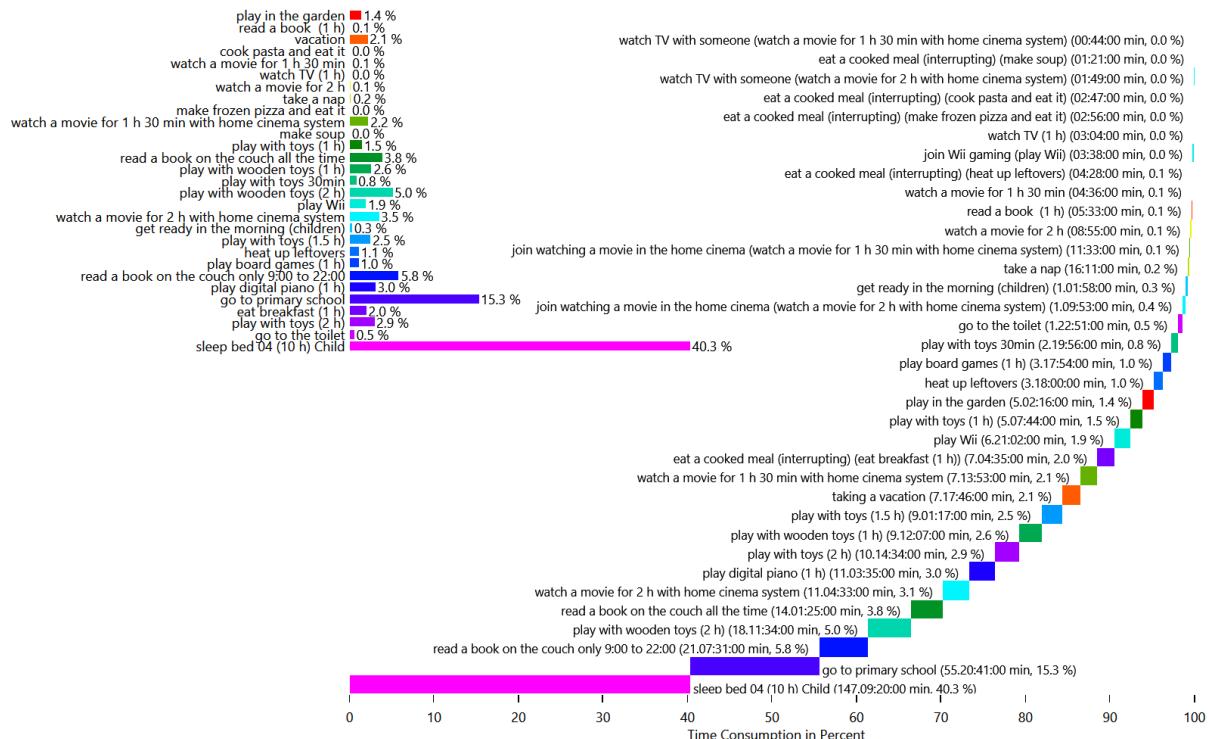
HH0 - CHR27 Emil (43 Male)



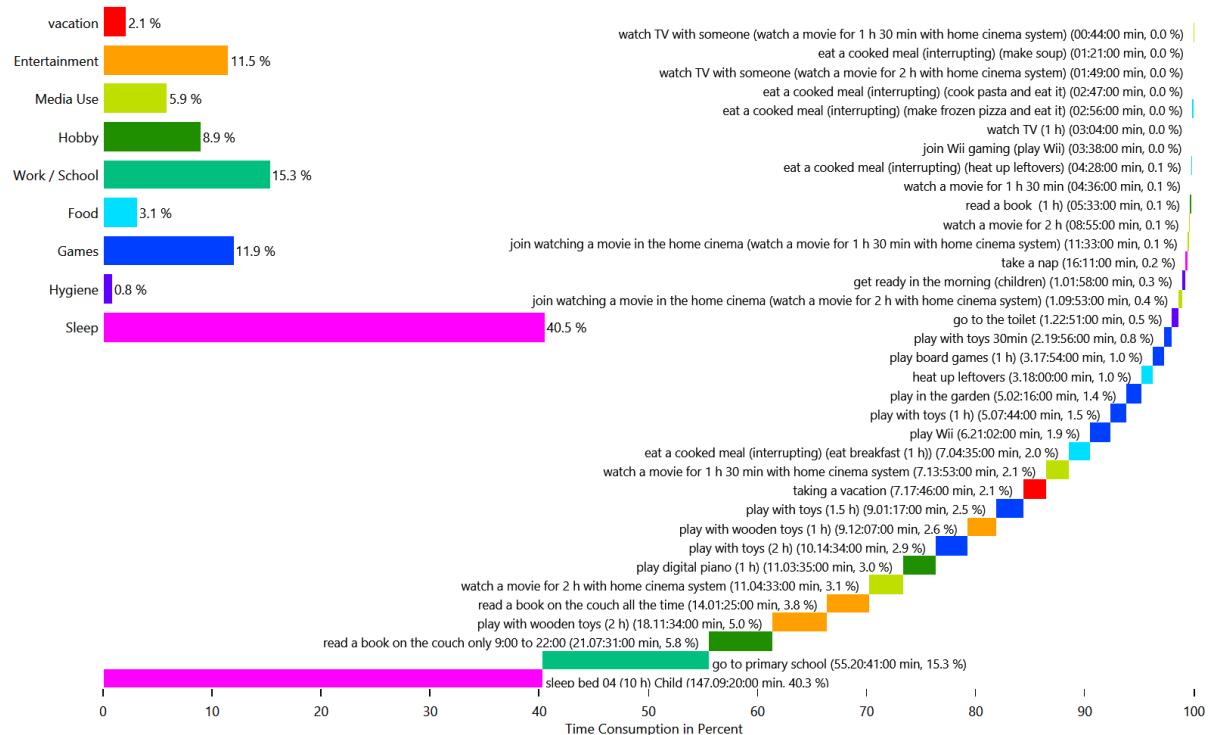
## HH0 - CHR27 Laura (9 Female)



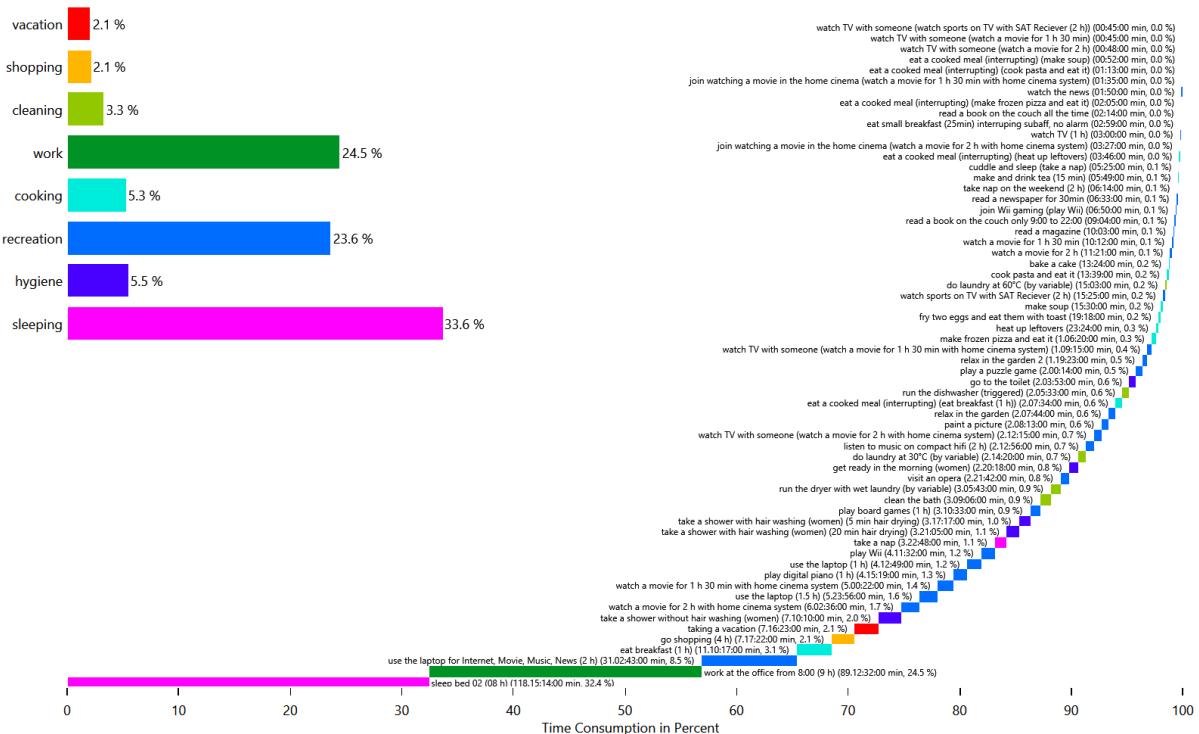
## HH0 - CHR27 Laura (9 Female)



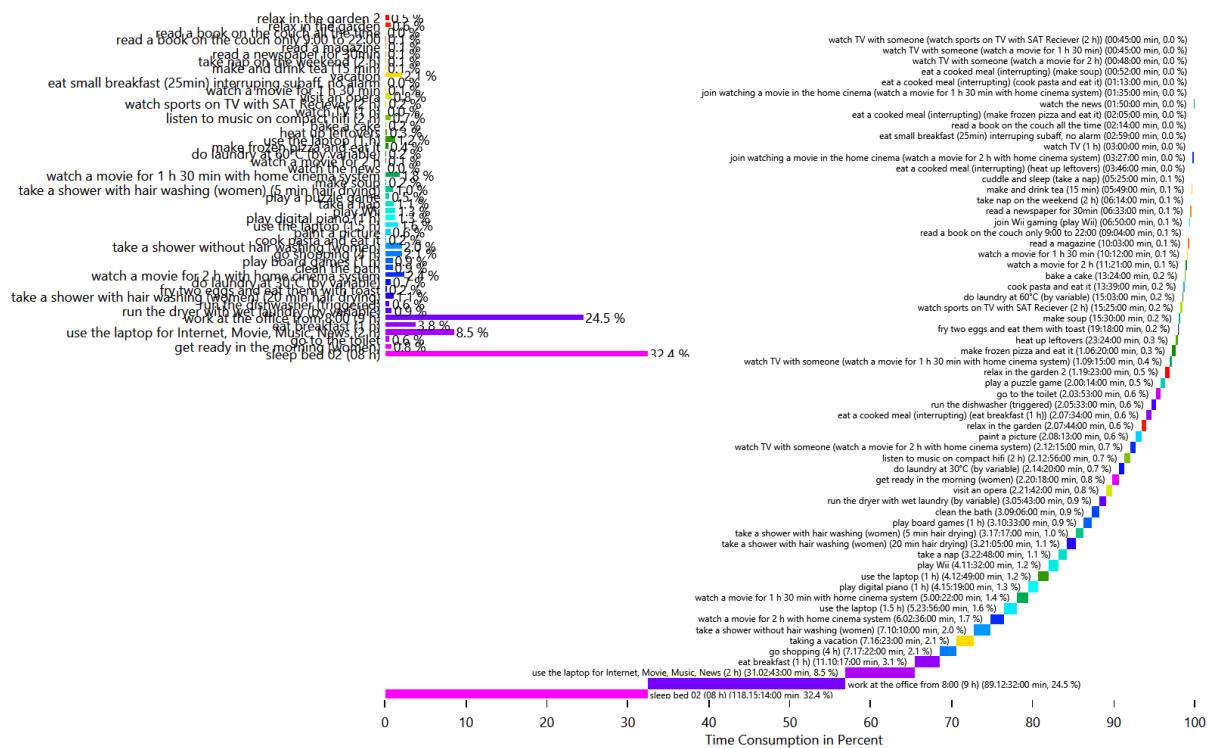
## HH0 - CHR27 Laura (9 Female)



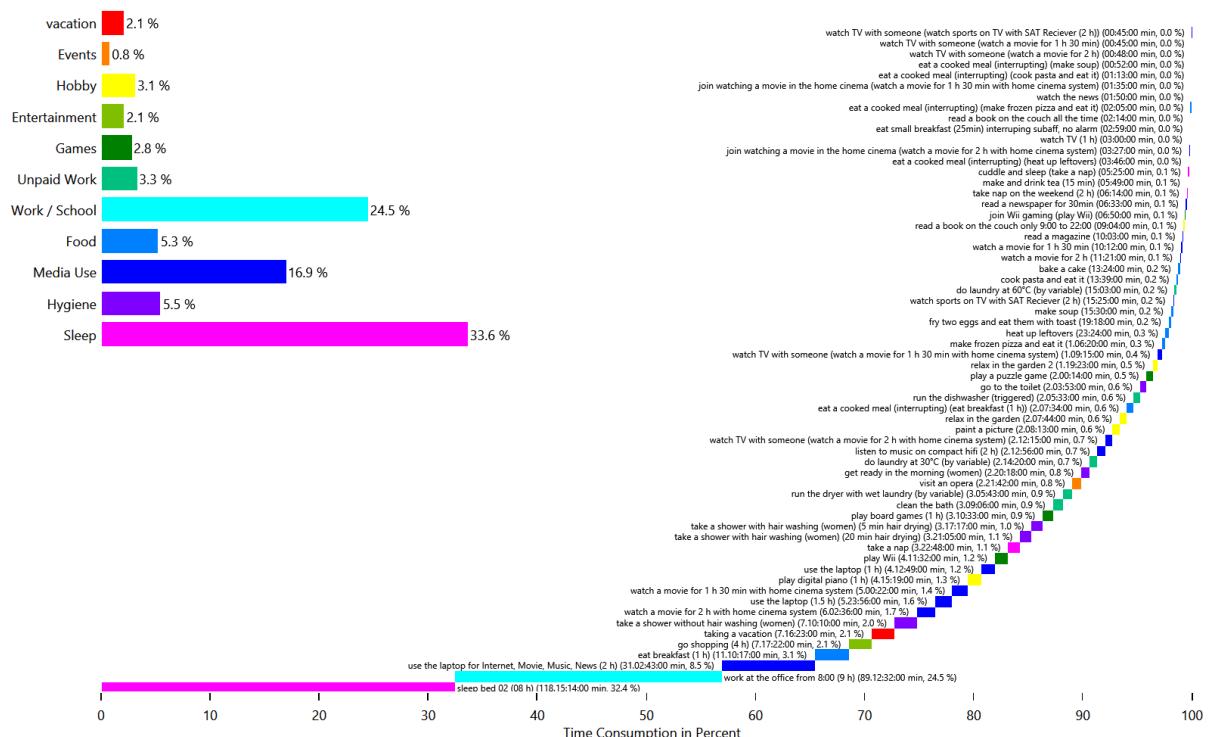
## HH0 - CHR27 Melanie (39 Female)



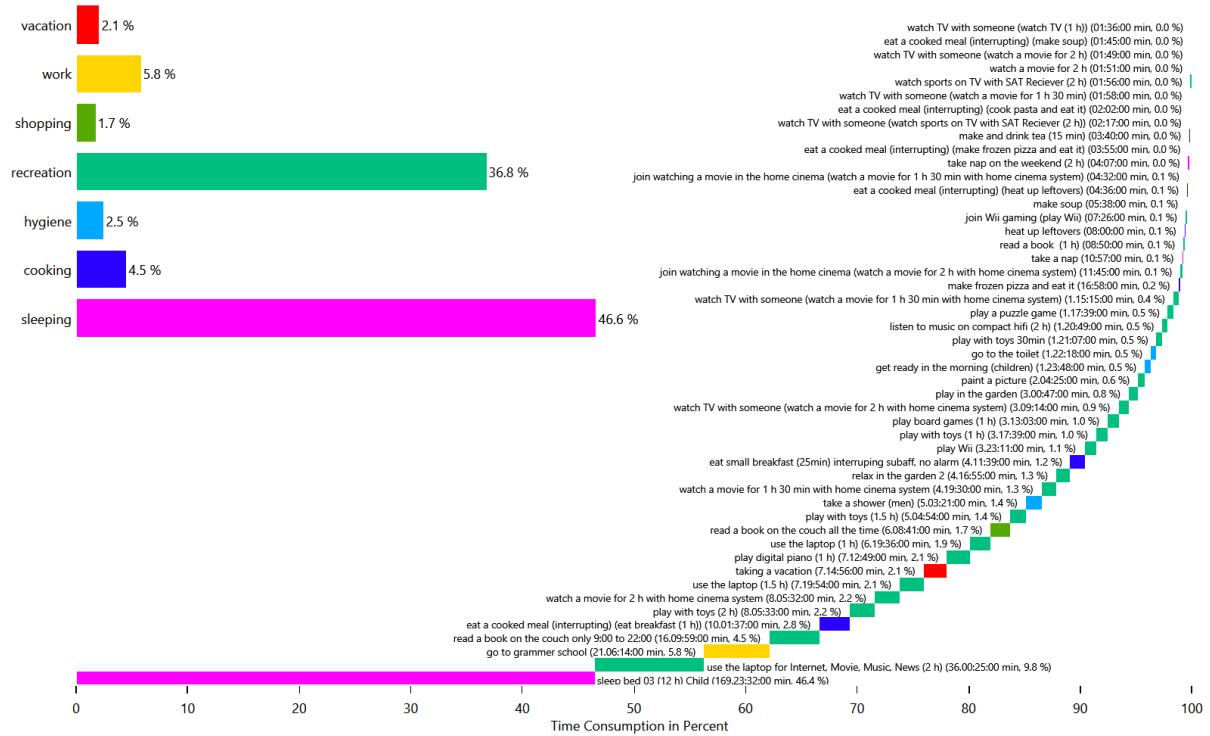
## HH0 - CHR27 Melanie (39 Female)



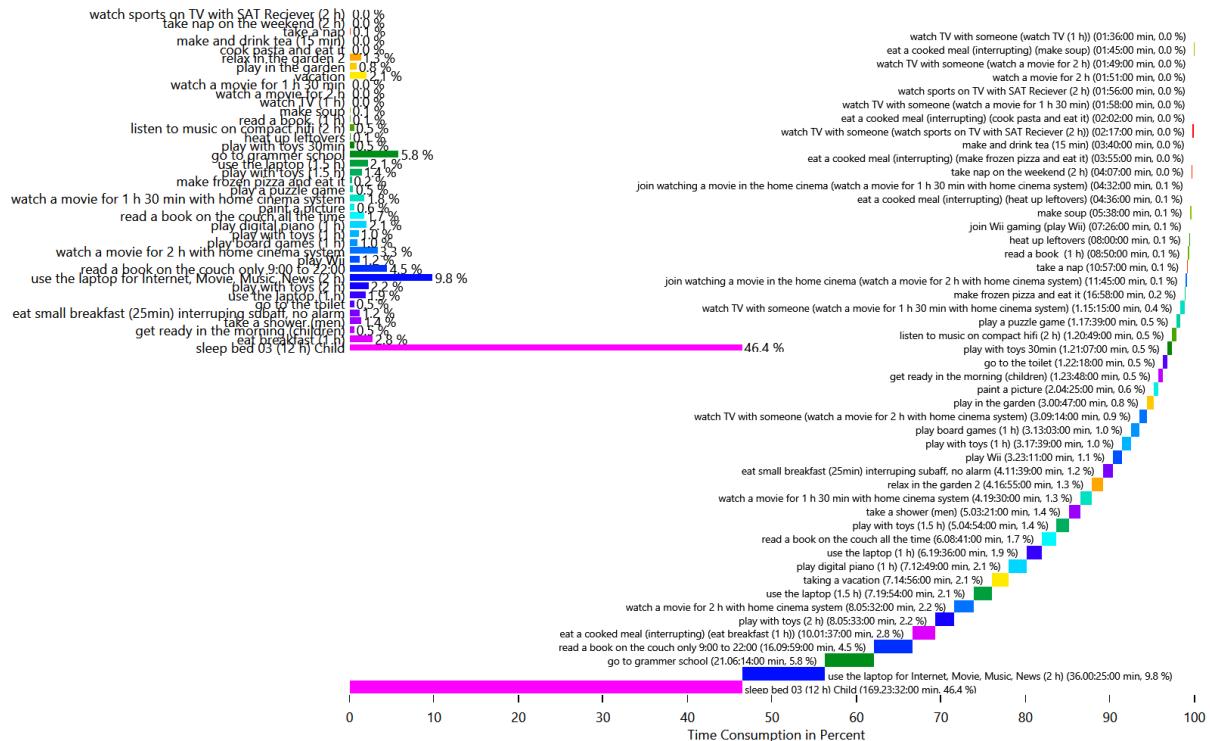
## HH0 - CHR27 Melanie (39 Female)



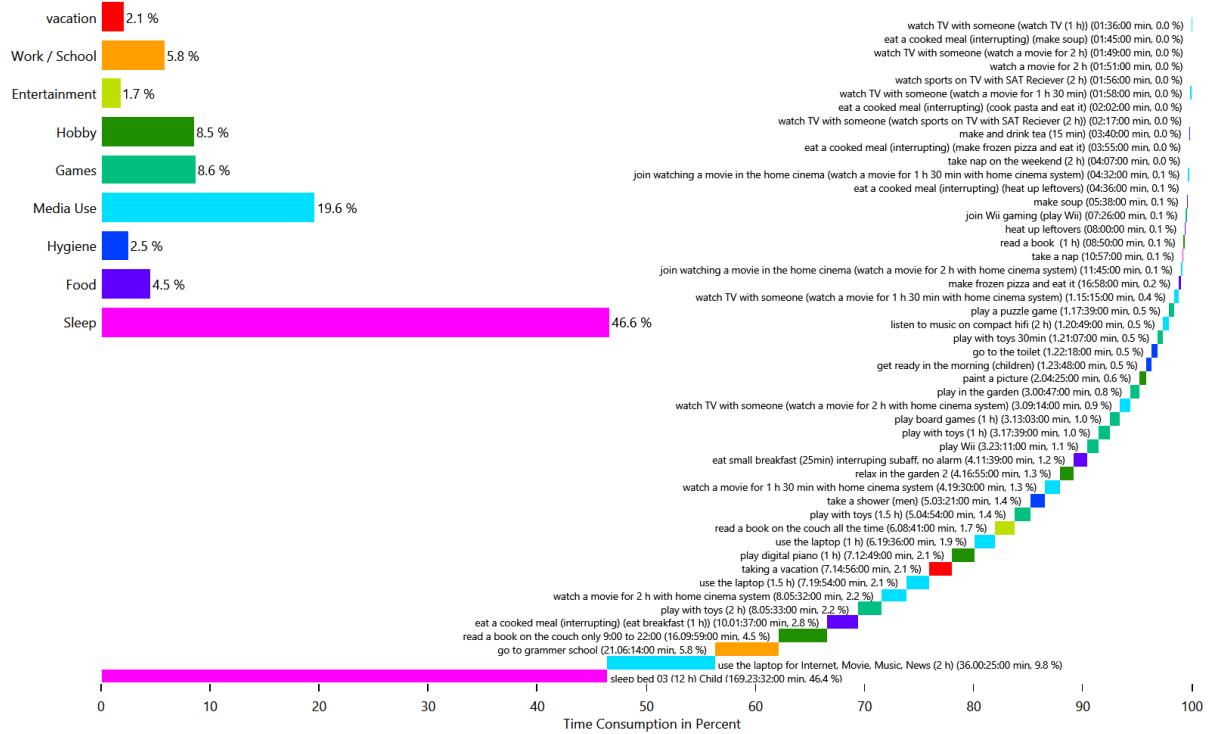
## HH0 - CHR27 Tobias (13 Male)



## HH0 - CHR27 Tobias (13 Male)



## HH0 - CHR27 Tobias (13 Male)

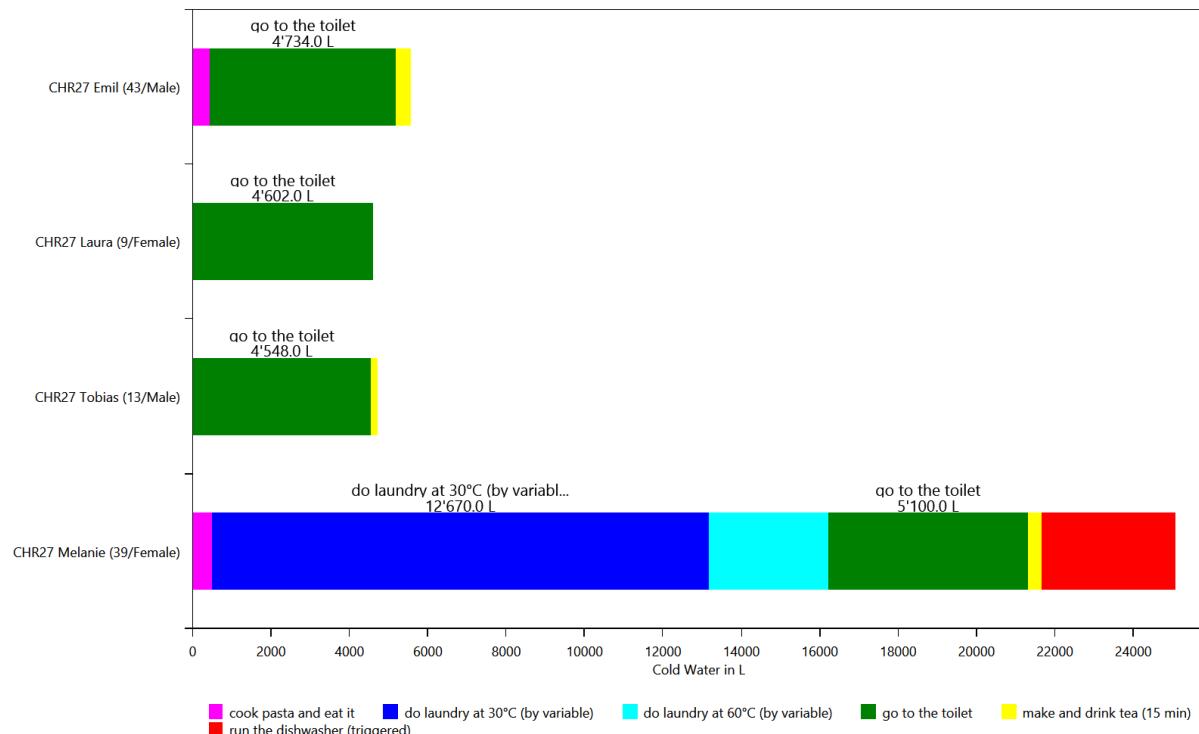


# Energy use per person per affordance

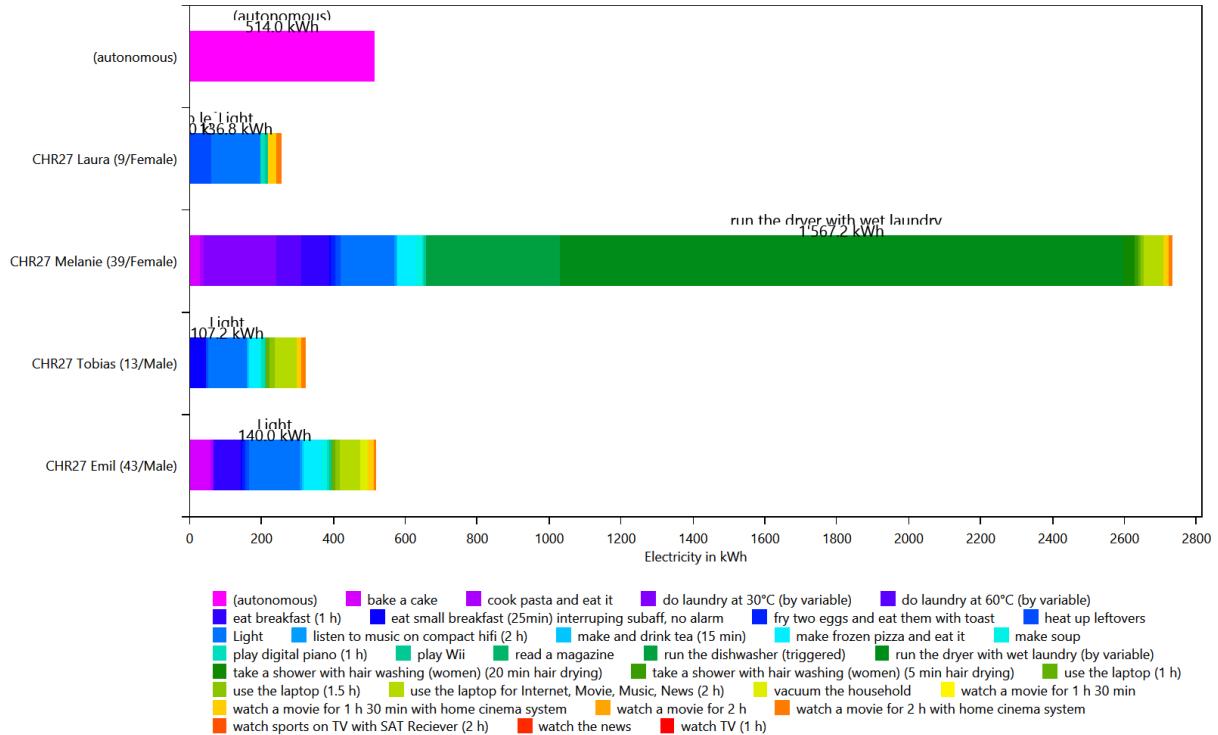
This is made from the files starting with: AffordanceEnergyUsePerPerson

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.

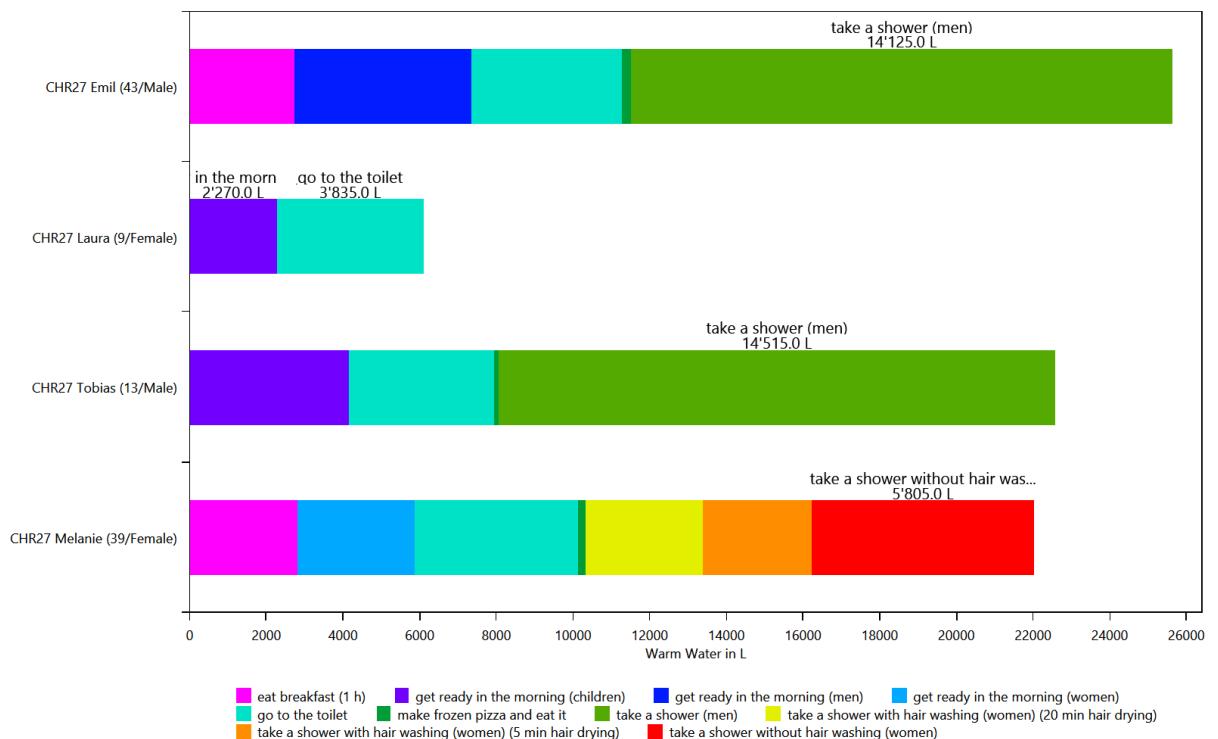
## HH0 - Cold Water



## HH0 - Electricity



## HH0 - Warm Water

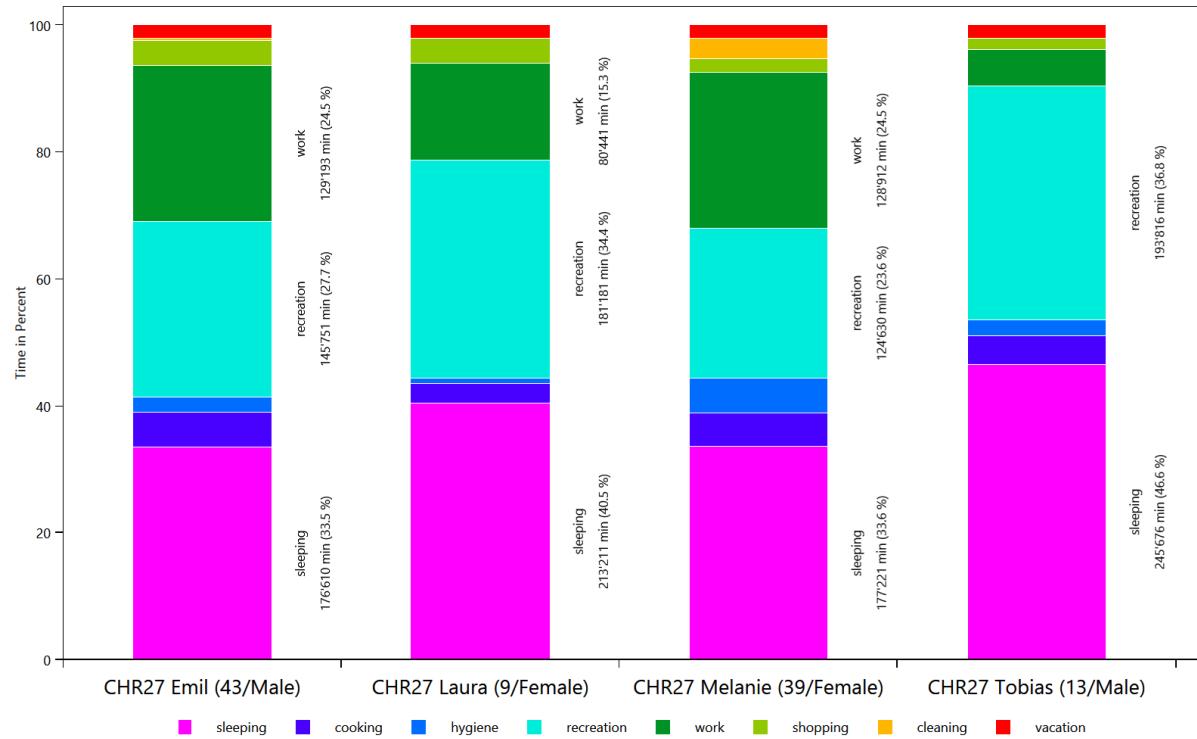


# Time Use per Person Per Affordance according to different category definitions

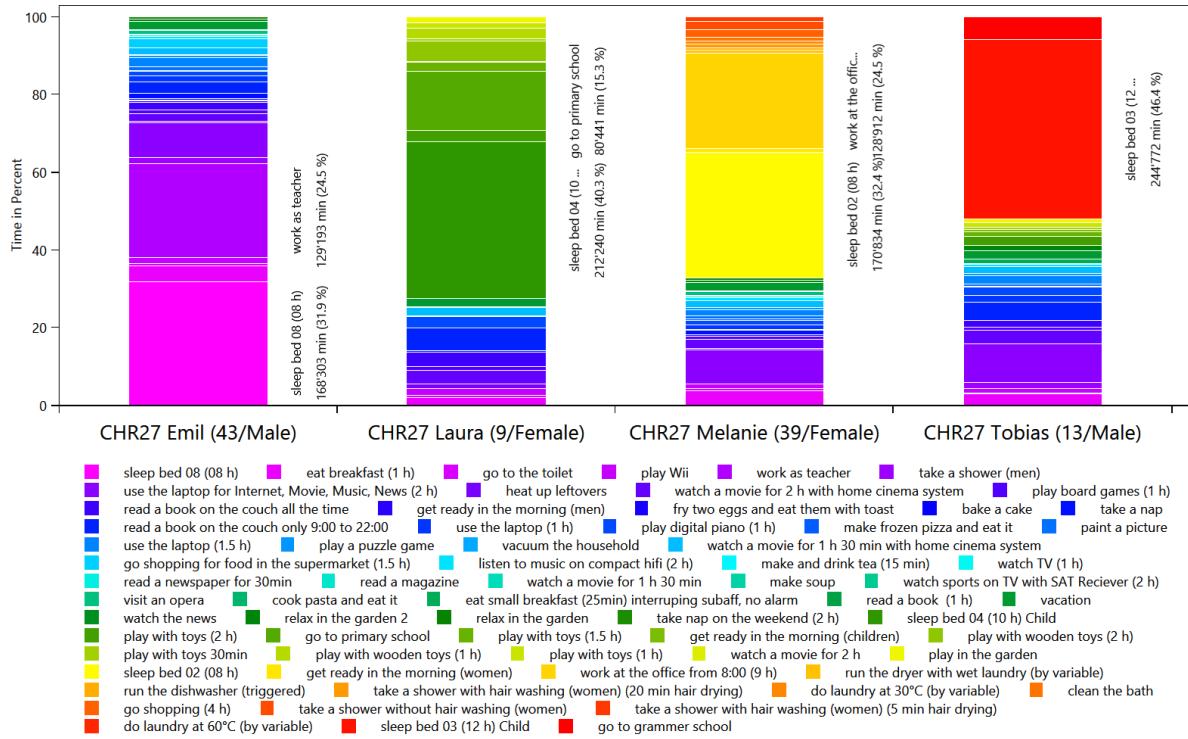
This is made from the files starting with: AffordanceTaggingSet

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.

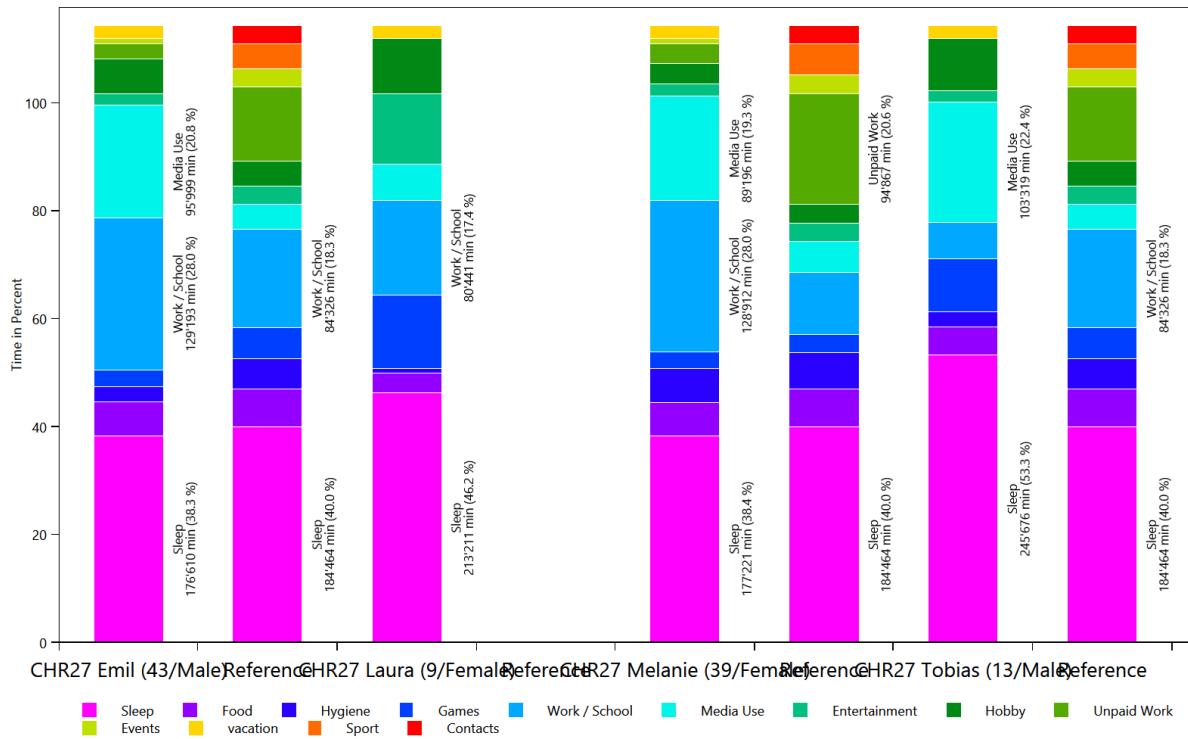
## Basic Tagging - HH0



## Tagging Set For Planning - HHO



## Wo bleibt die Zeit - HHO

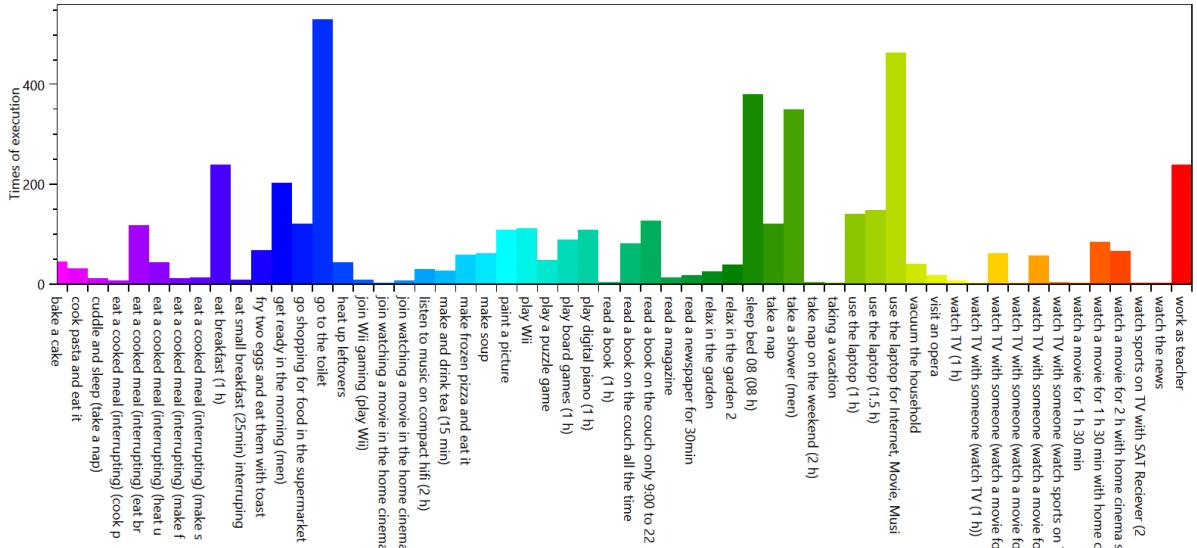


# Overview of the actions of each member of the household

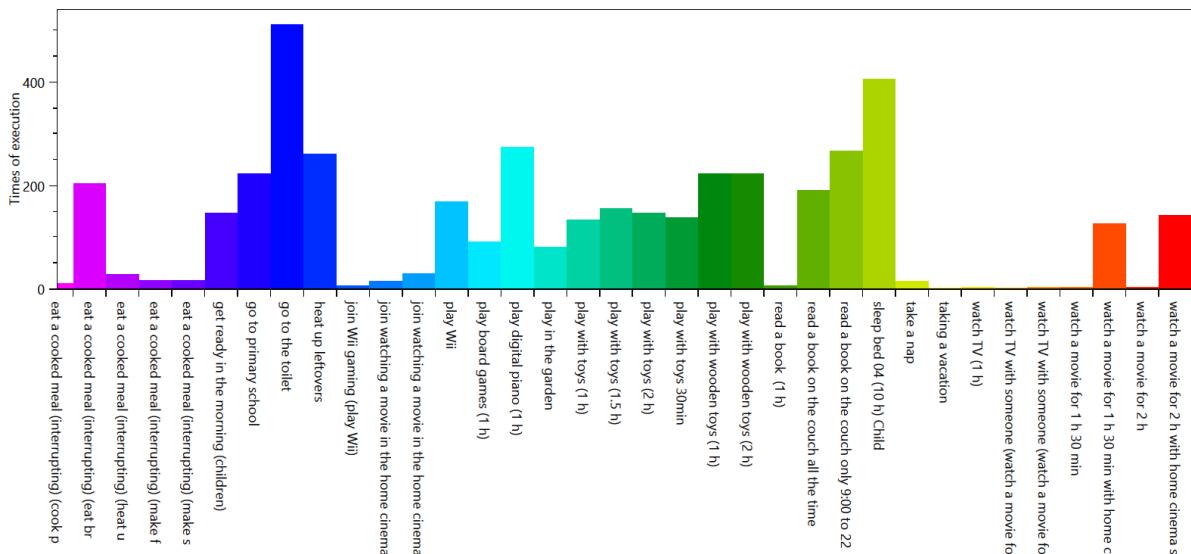
This is made from the files starting with: ExecutedActionsOverviewCount

These charts show how often each affordance was executed.

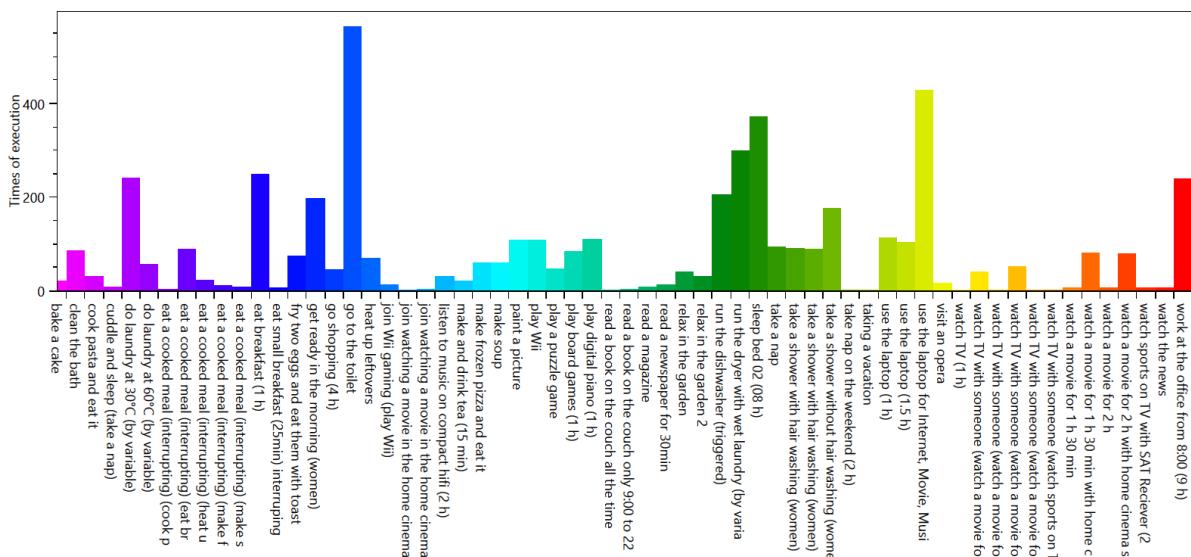
HH0 - CHR27 Emil (43 Male)



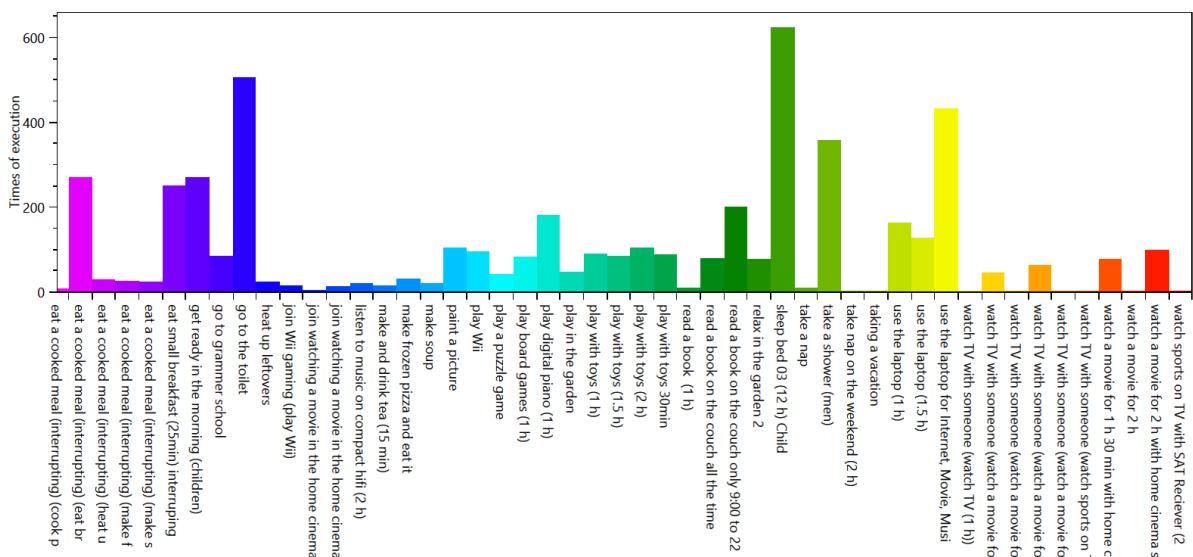
## HH0 - CHR27 Laura (9 Female)



## HH0 - CHR27 Melanie (39 Female)



## HH0 - CHR27 Tobias (13 Male)

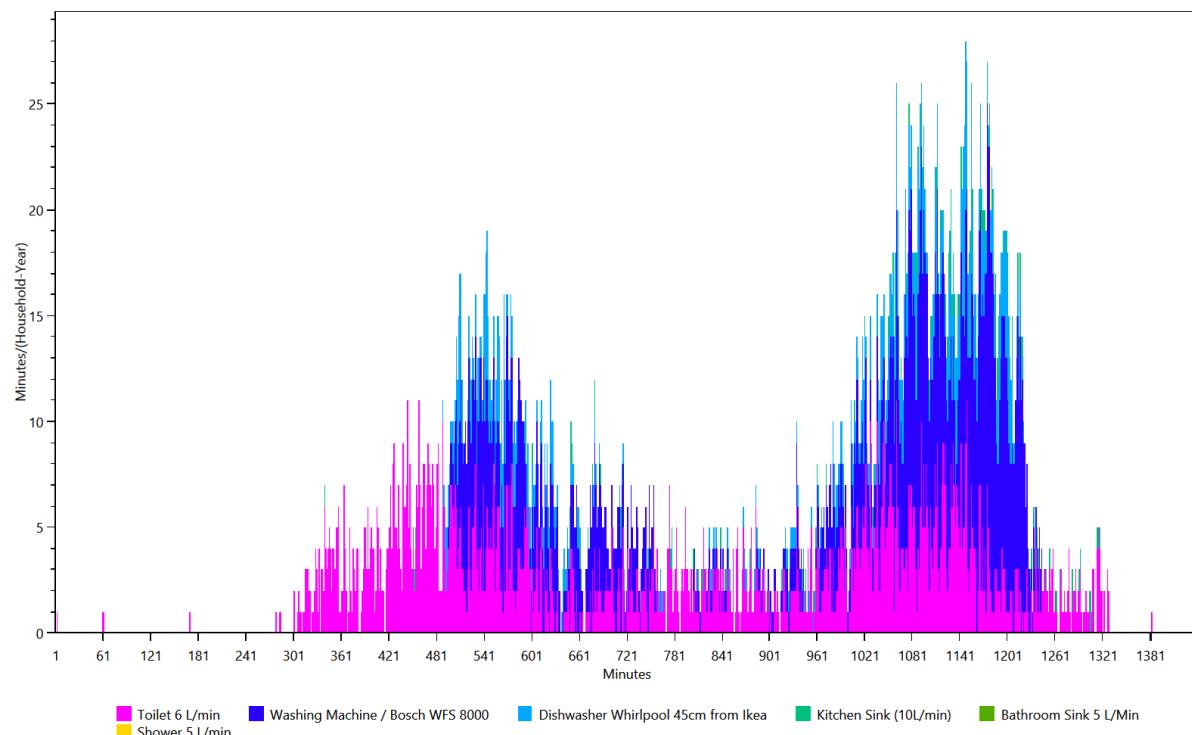


# Overview of the time of the use per load type per device

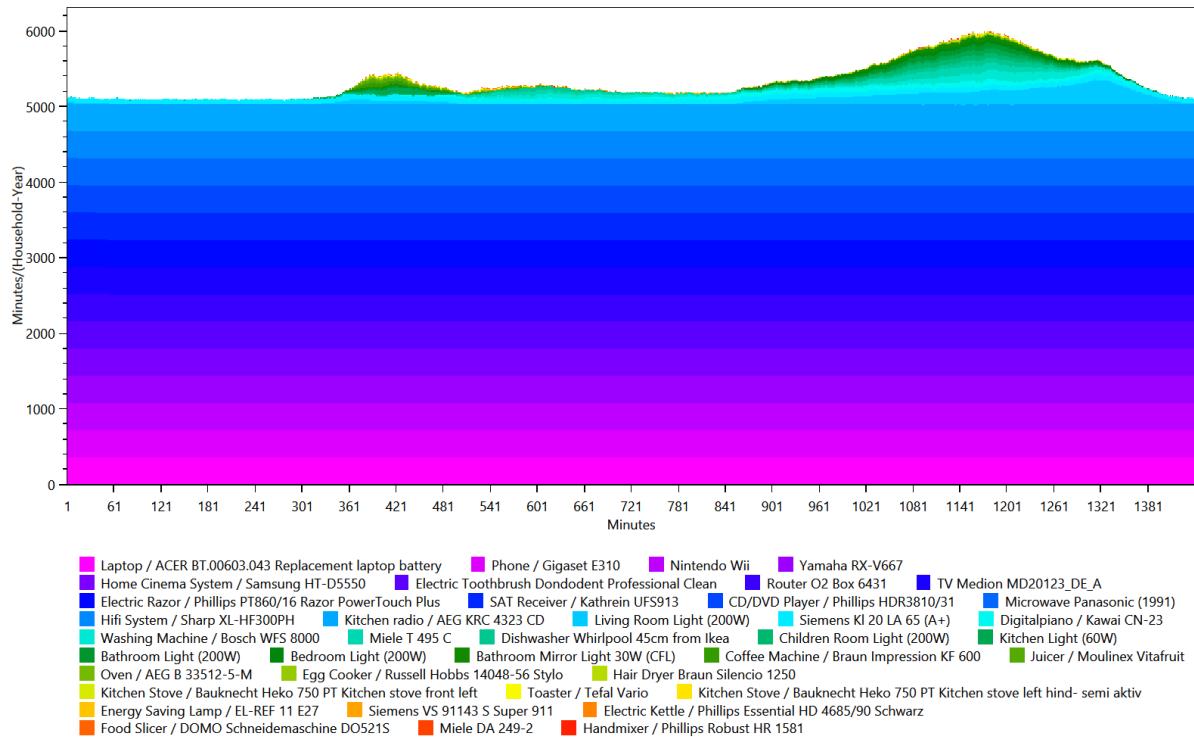
This is made from the files starting with: TimeOfUseEnergyProfiles

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

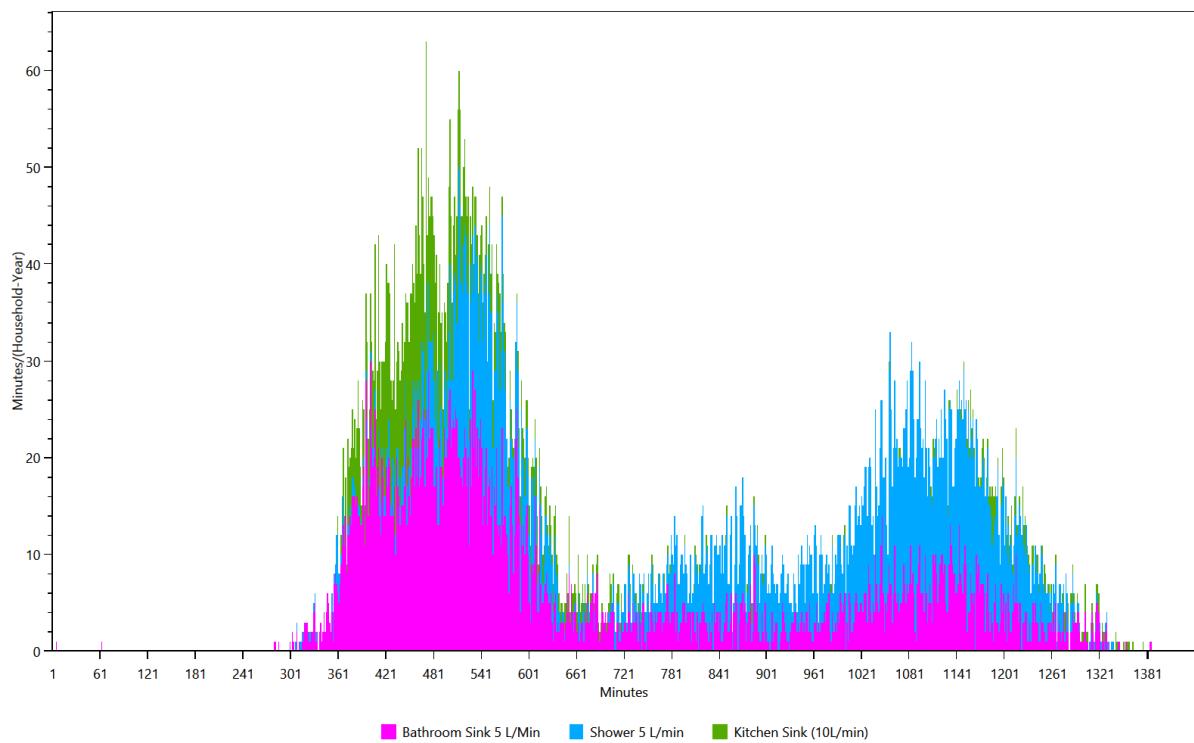
Cold Water



## Electricity



## Warm Water

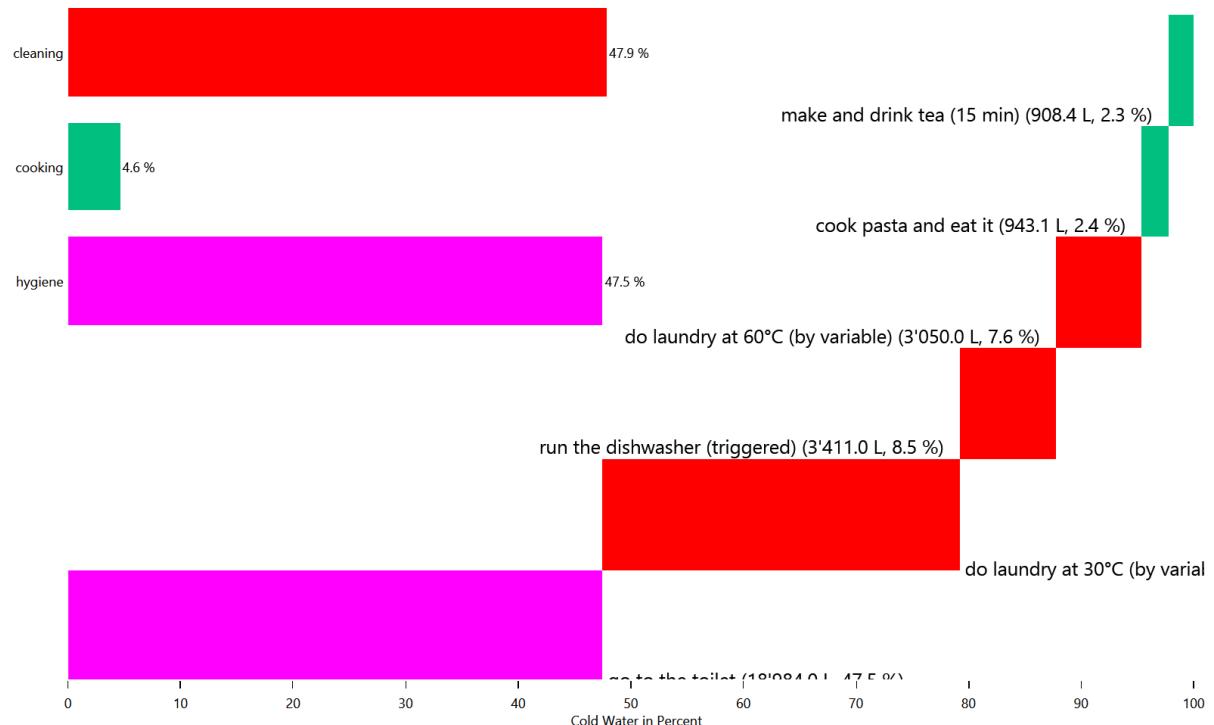


# Energy/Resource use distribution per load type per affordance

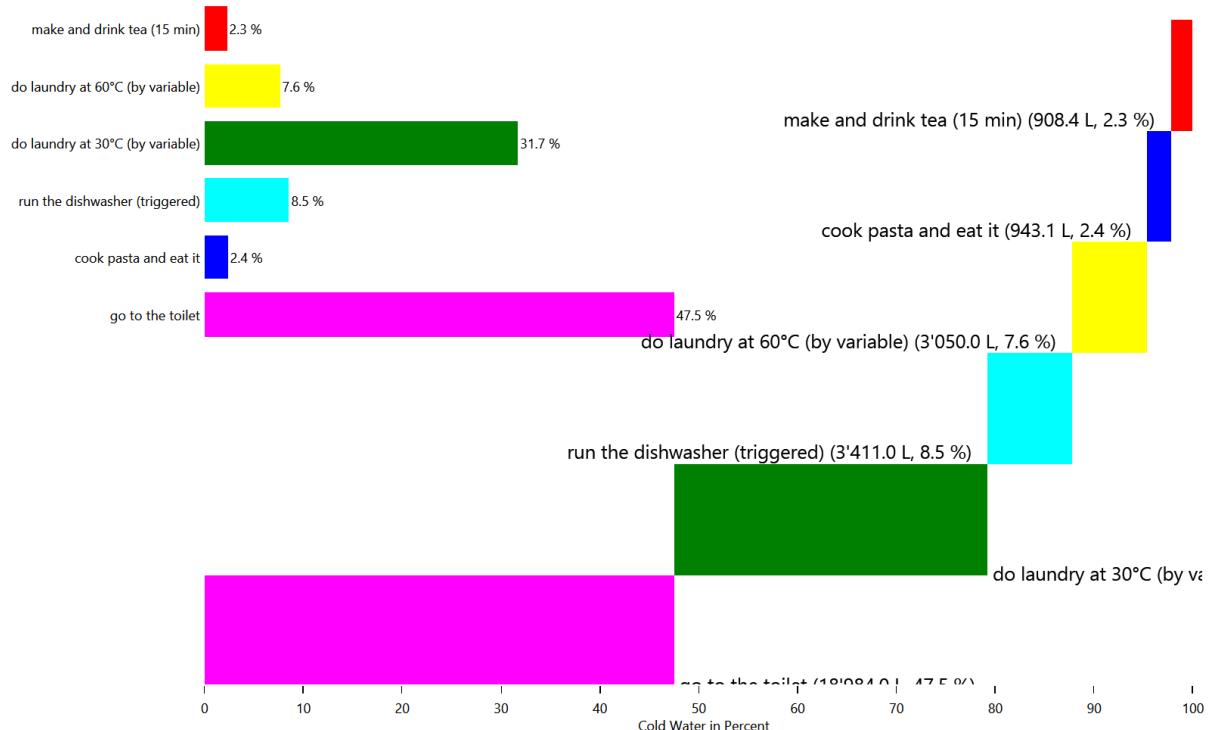
This is made from the files starting with: AffordanceEnergyUse

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

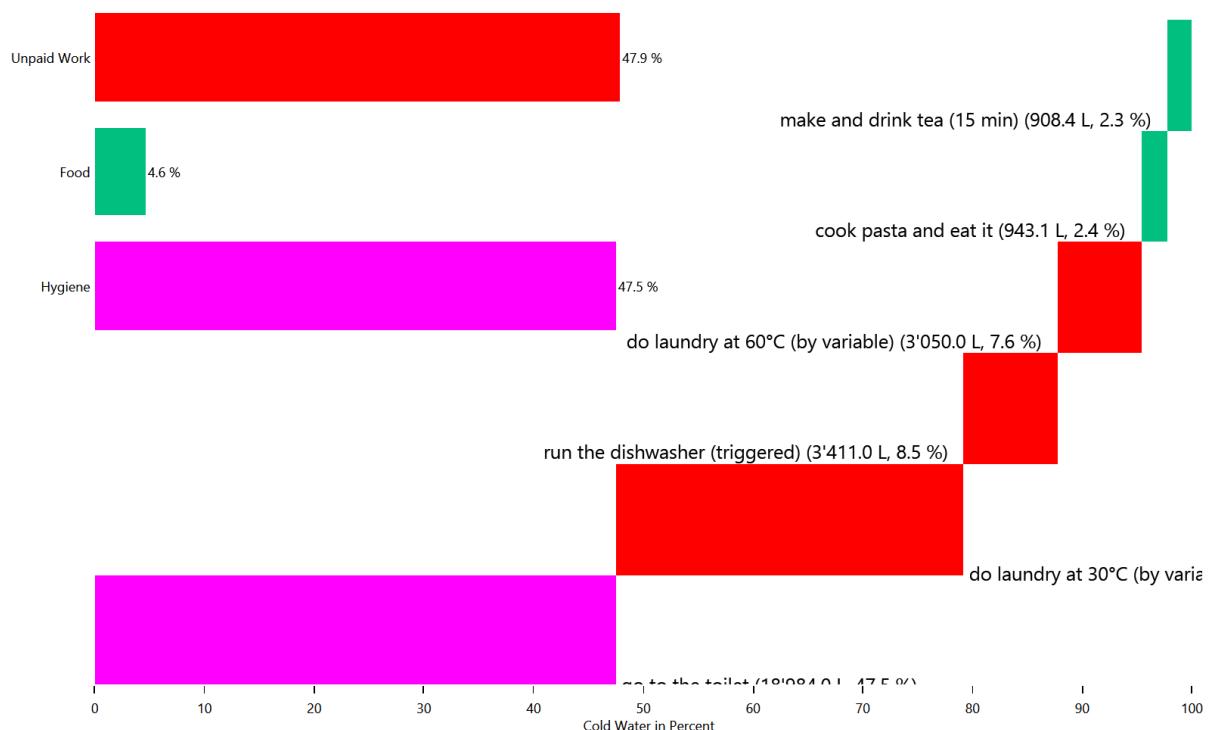
HH0 - Cold Water



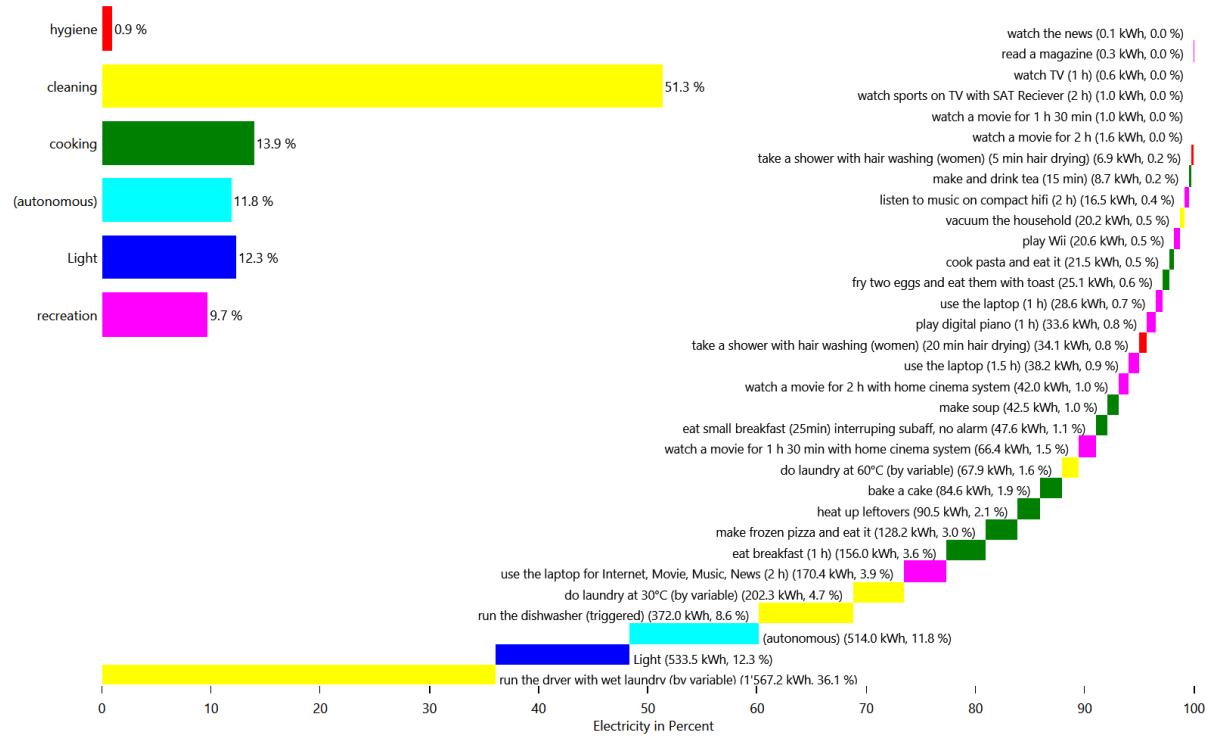
## HH0 - Cold Water



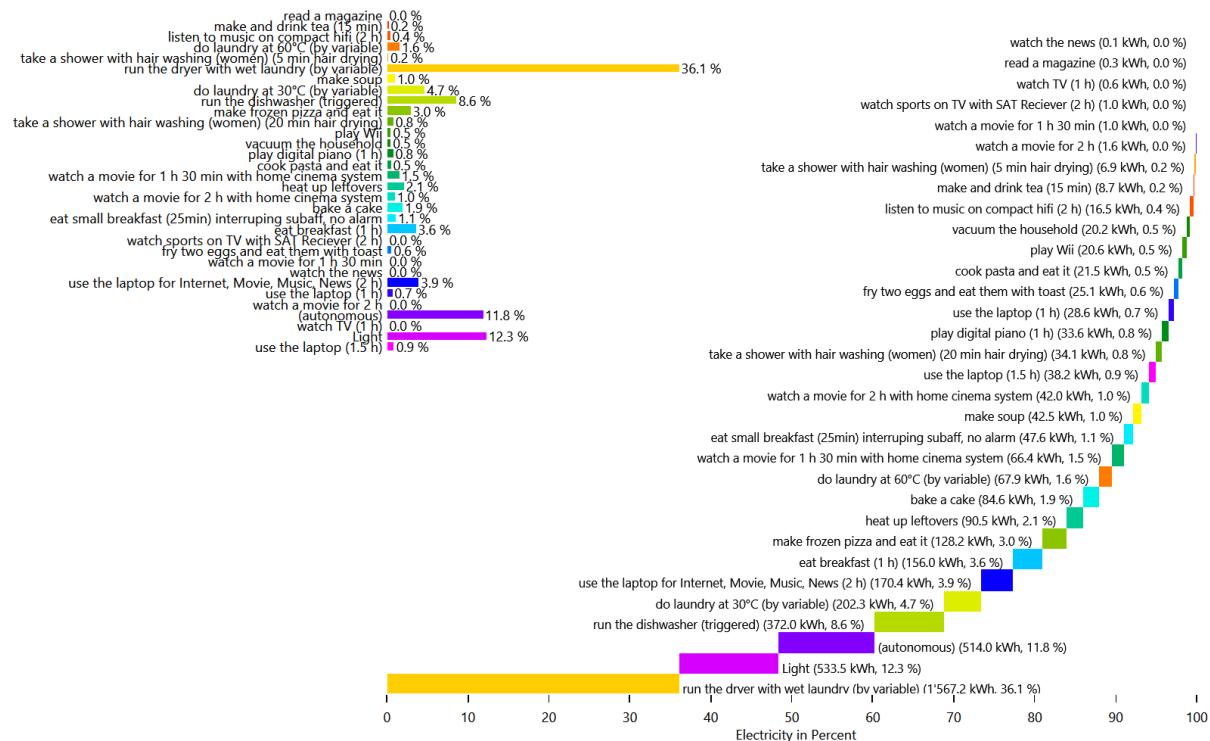
## HH0 - Cold Water



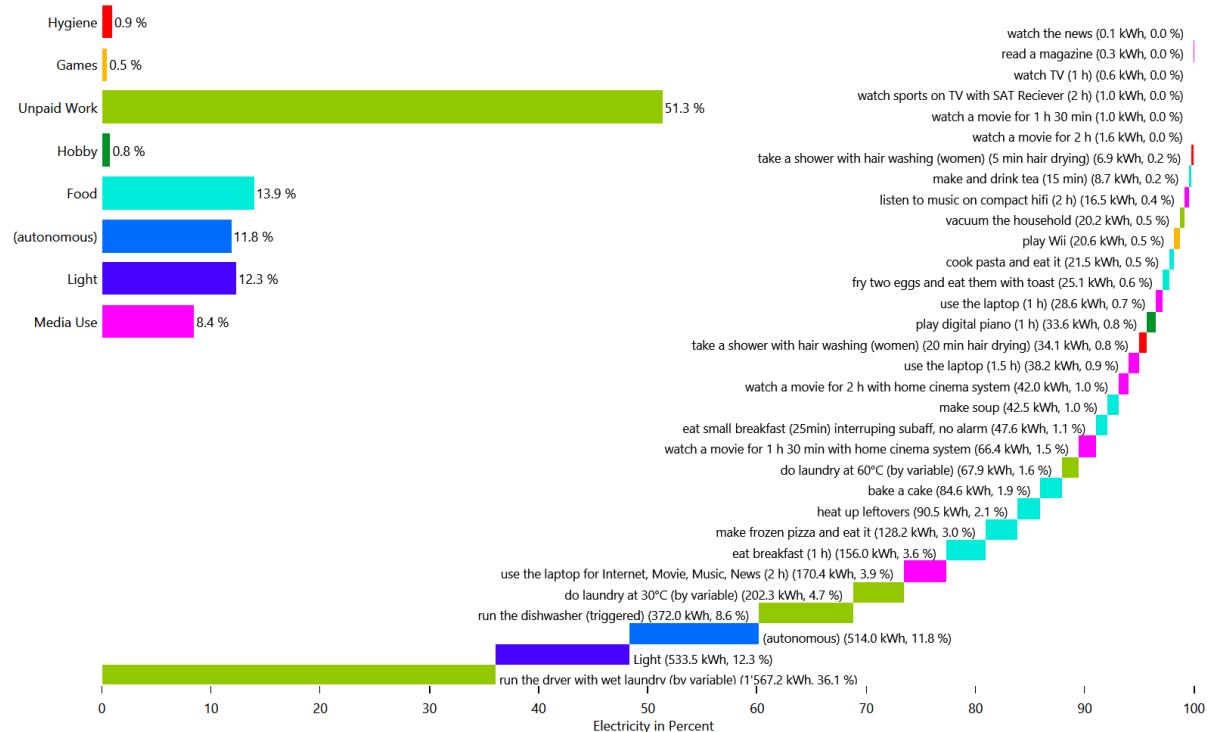
## HH0 - Electricity



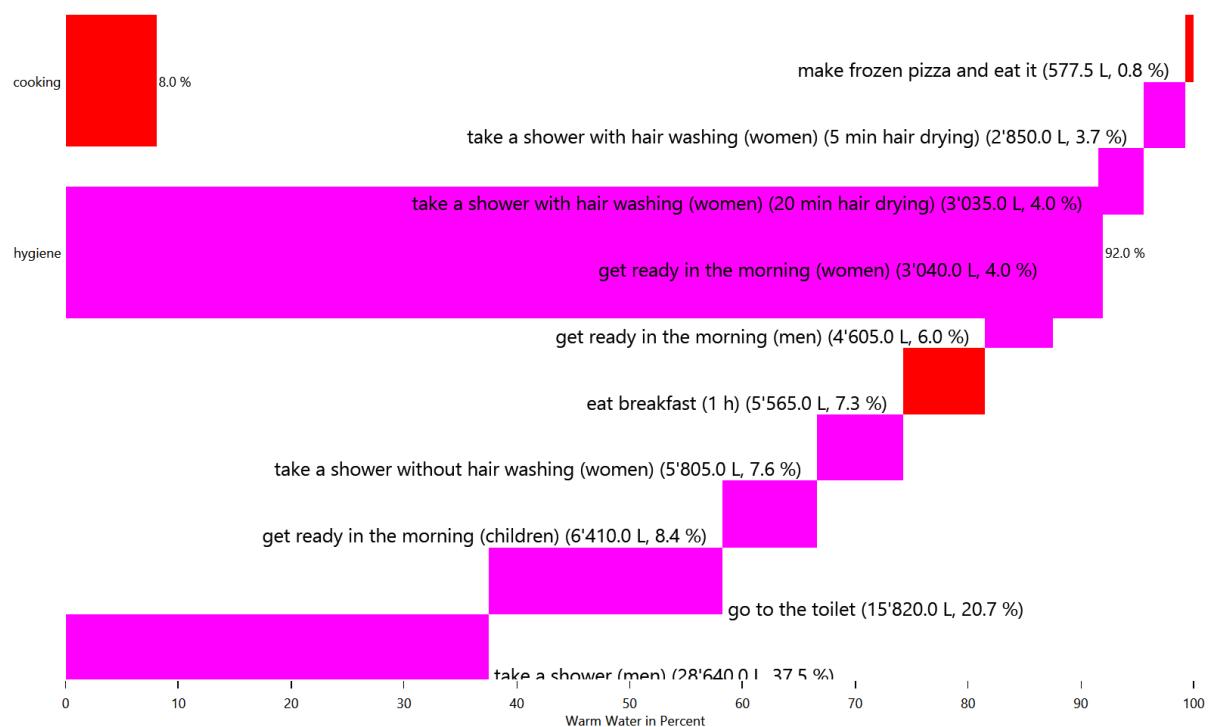
## HH0 - Electricity



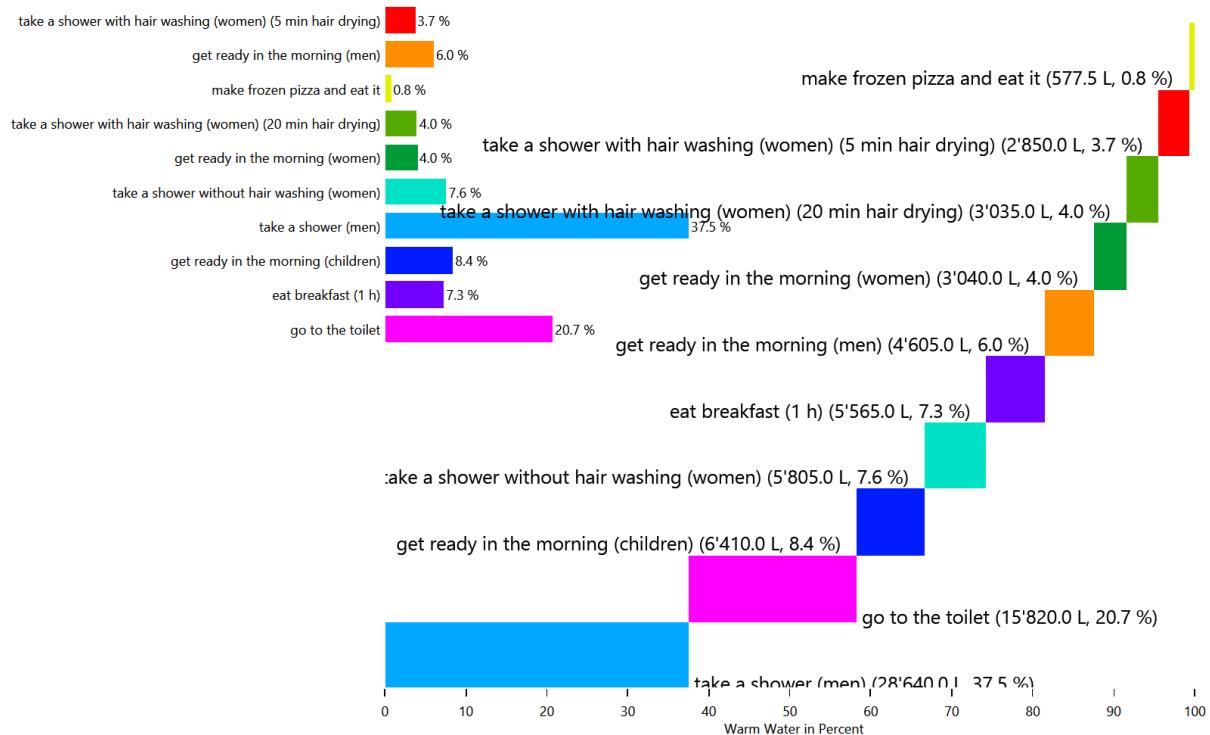
## HH0 - Electricity



## HH0 - Warm Water



## HH0 - Warm Water



## HH0 - Warm Water

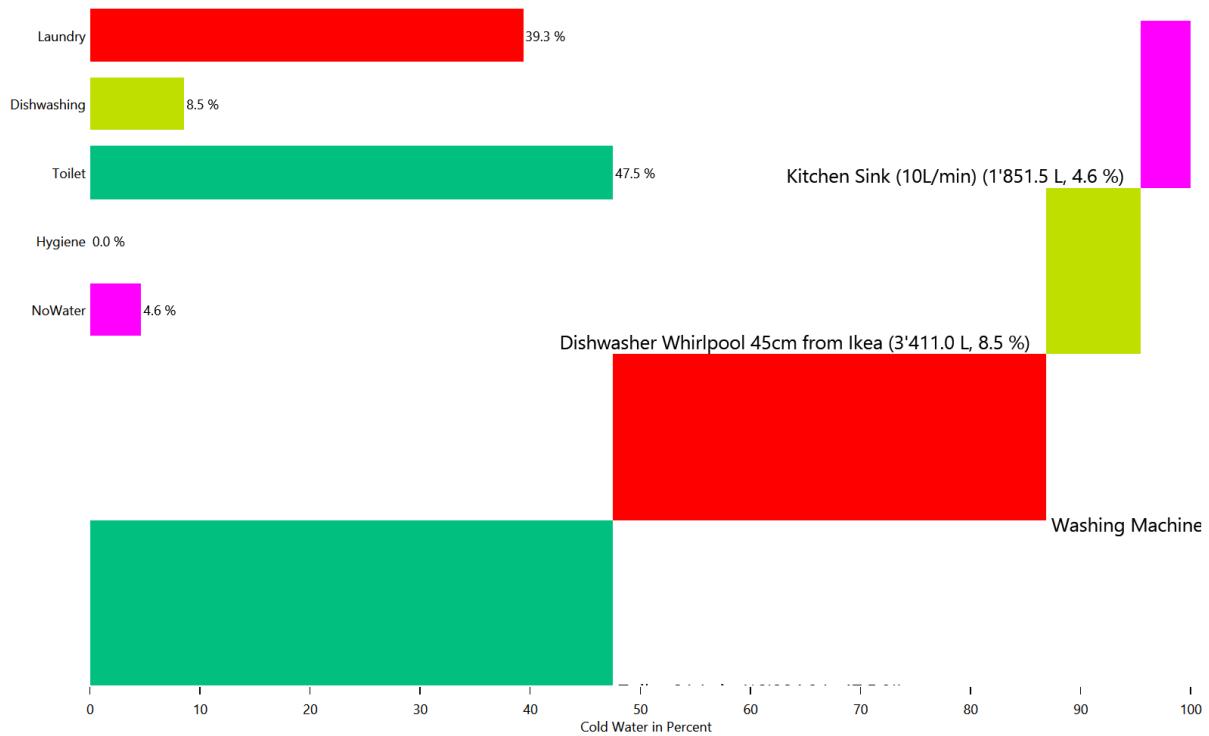


# Energy use for each load type for each device

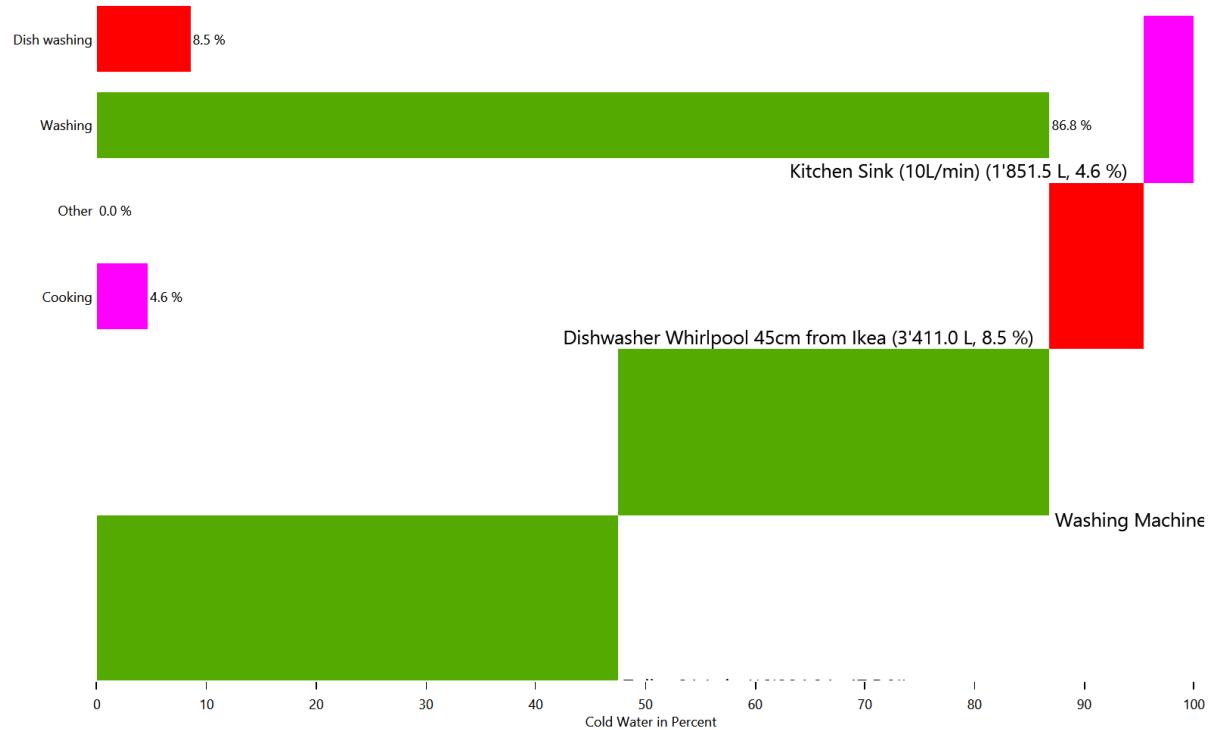
This is made from the files starting with: DeviceSums

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

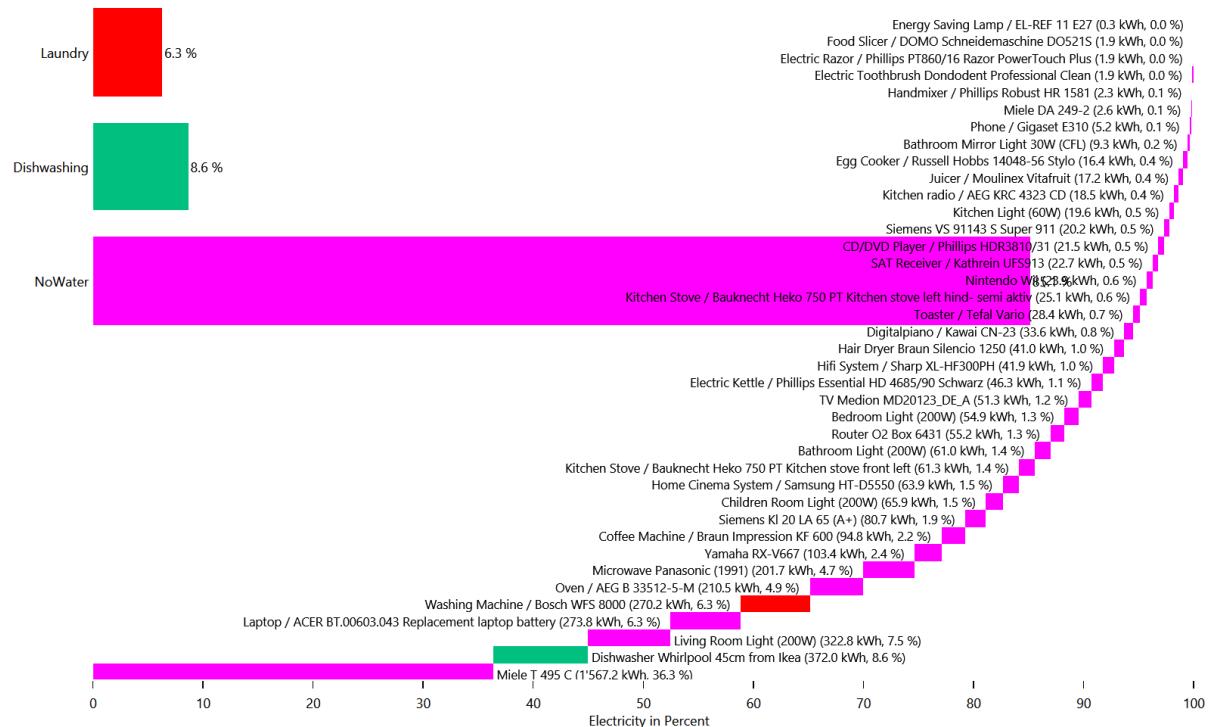
## Cold Water



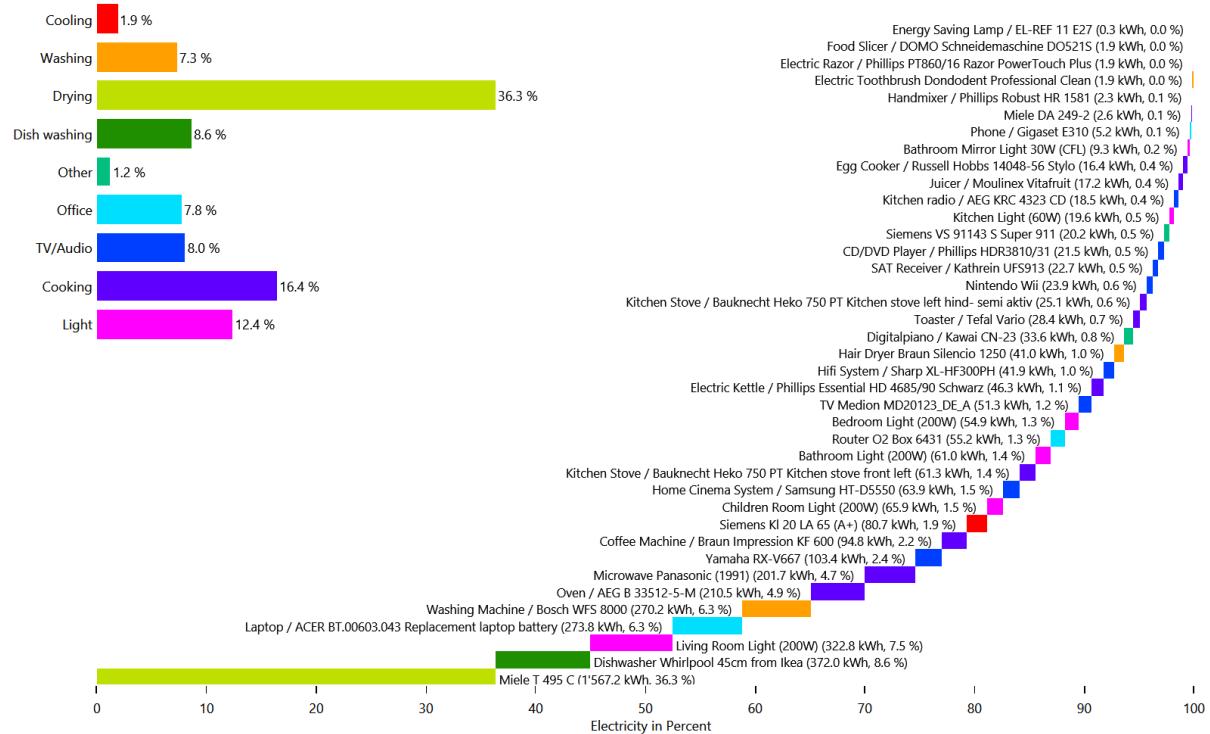
## Cold Water



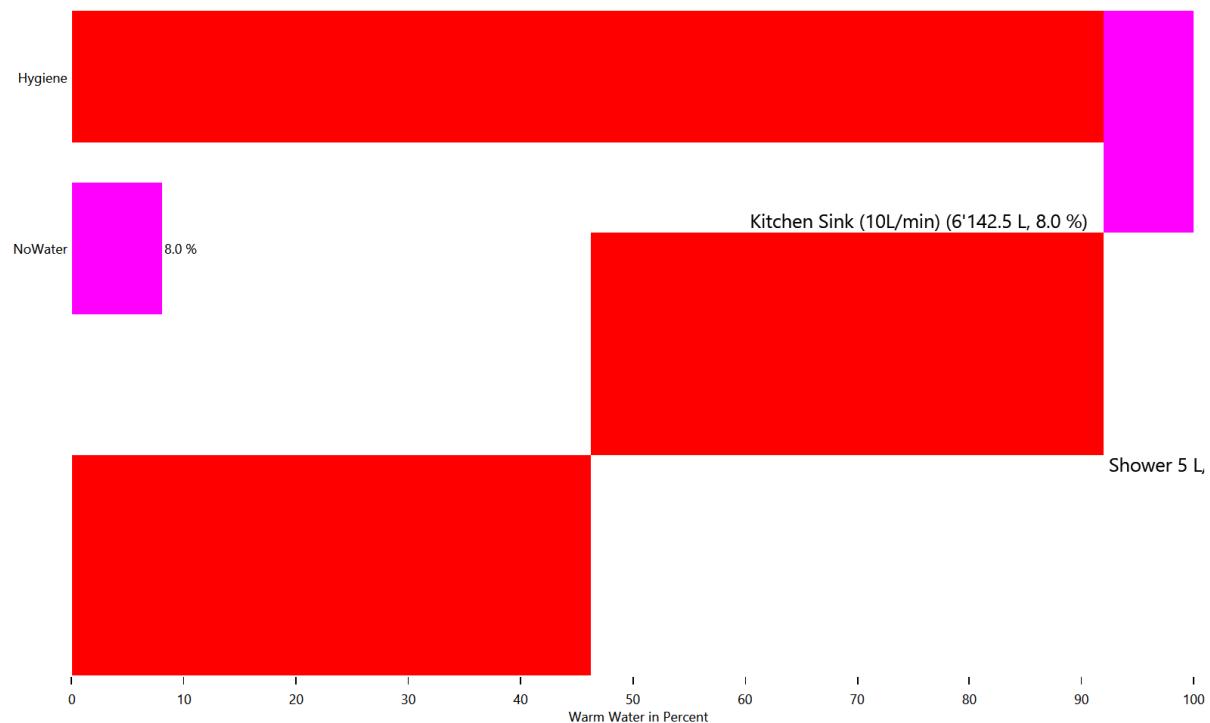
## Electricity



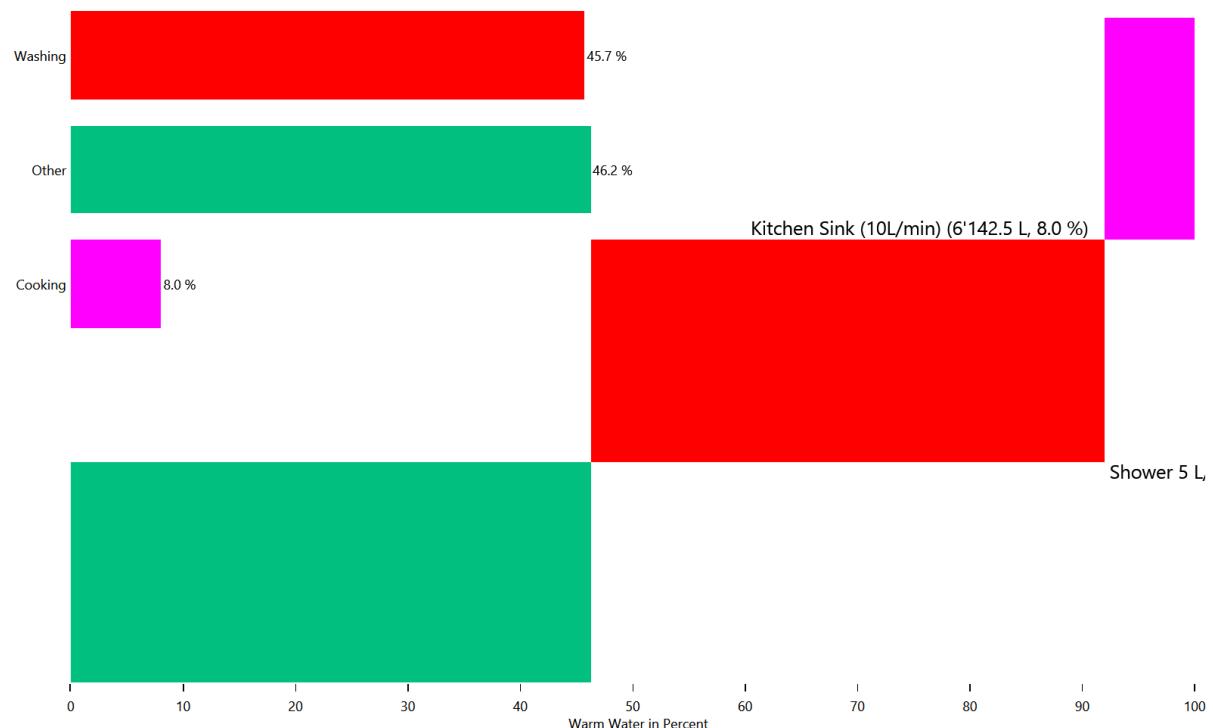
## Electricity



## Warm Water



## Warm Water

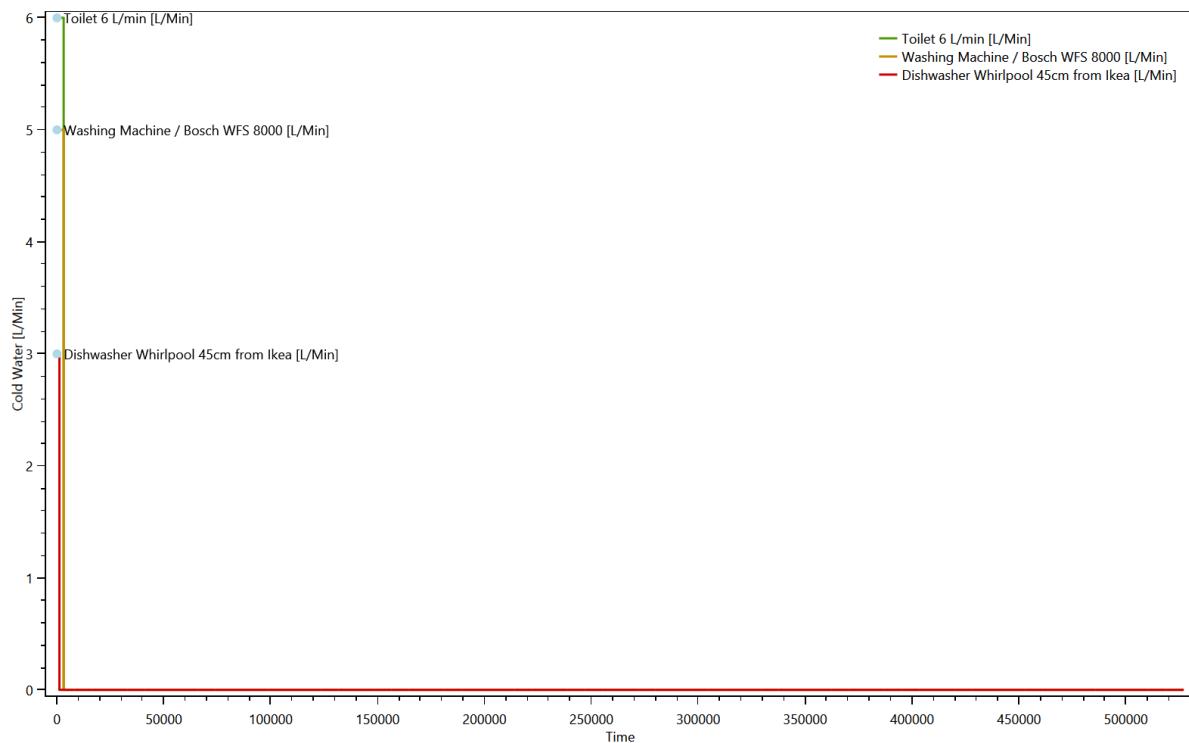


# Duration curve for each device for each load type

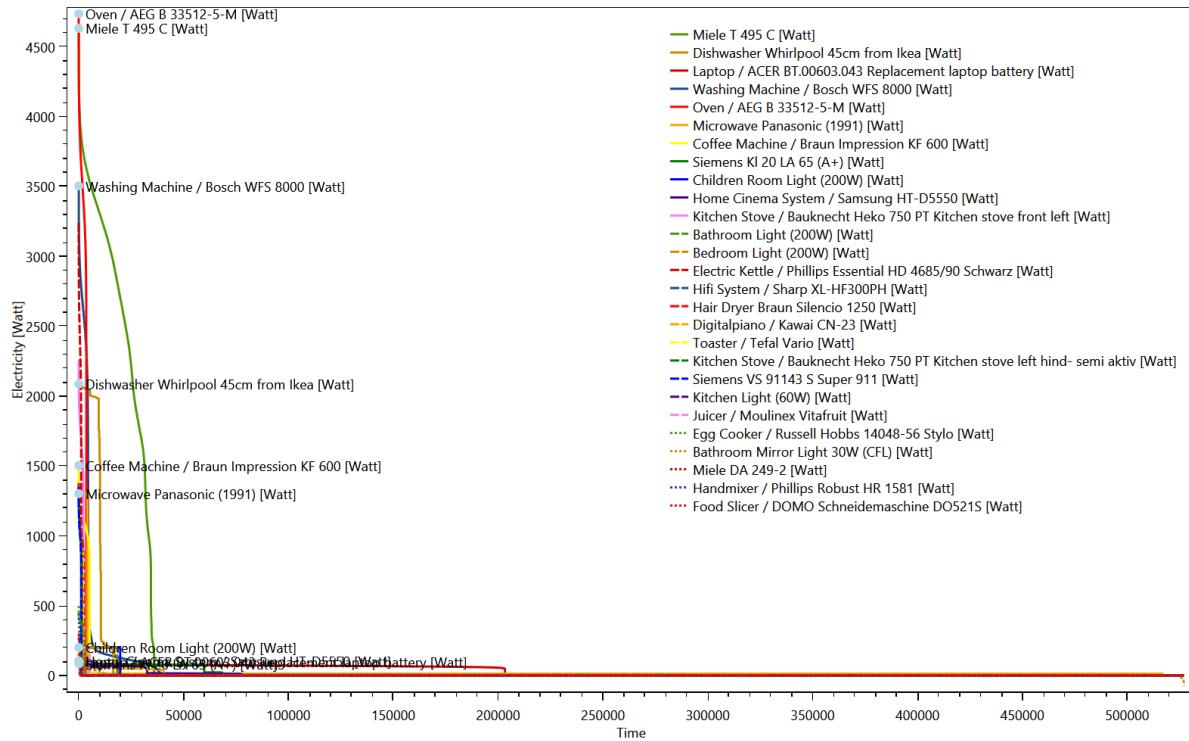
This is made from the files starting with: DeviceDurationCurves

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

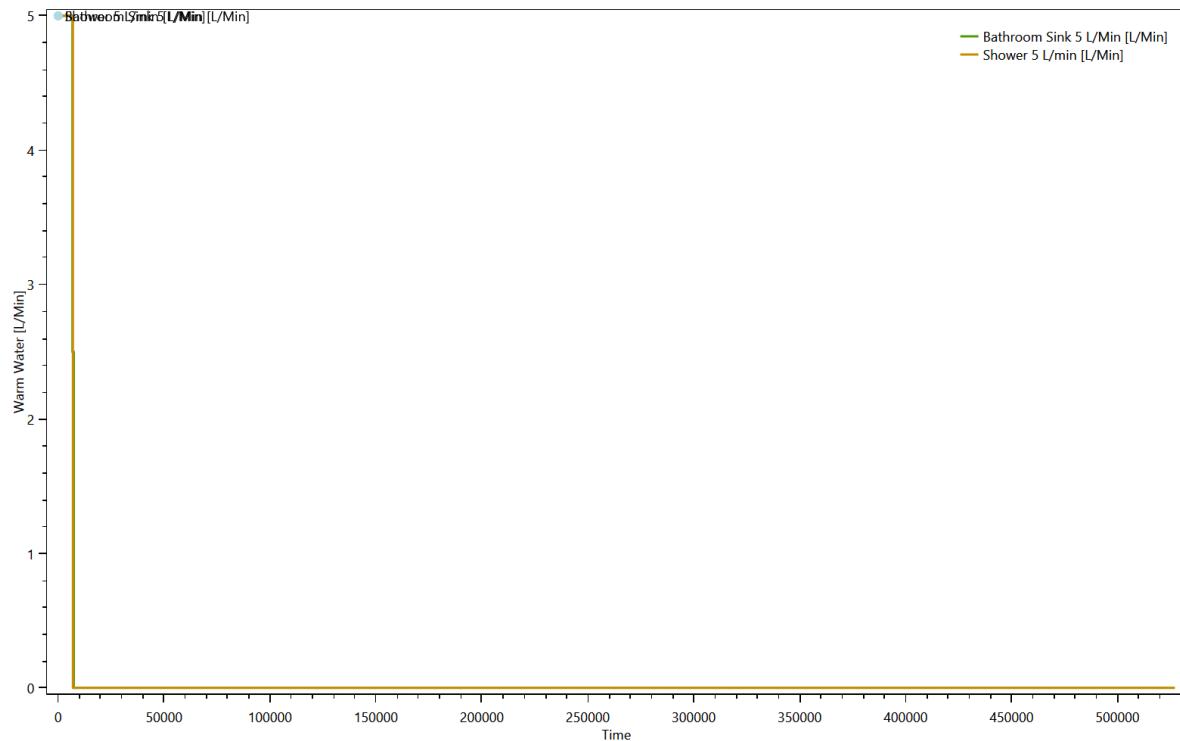
## Cold Water



## Electricity



## Warm Water

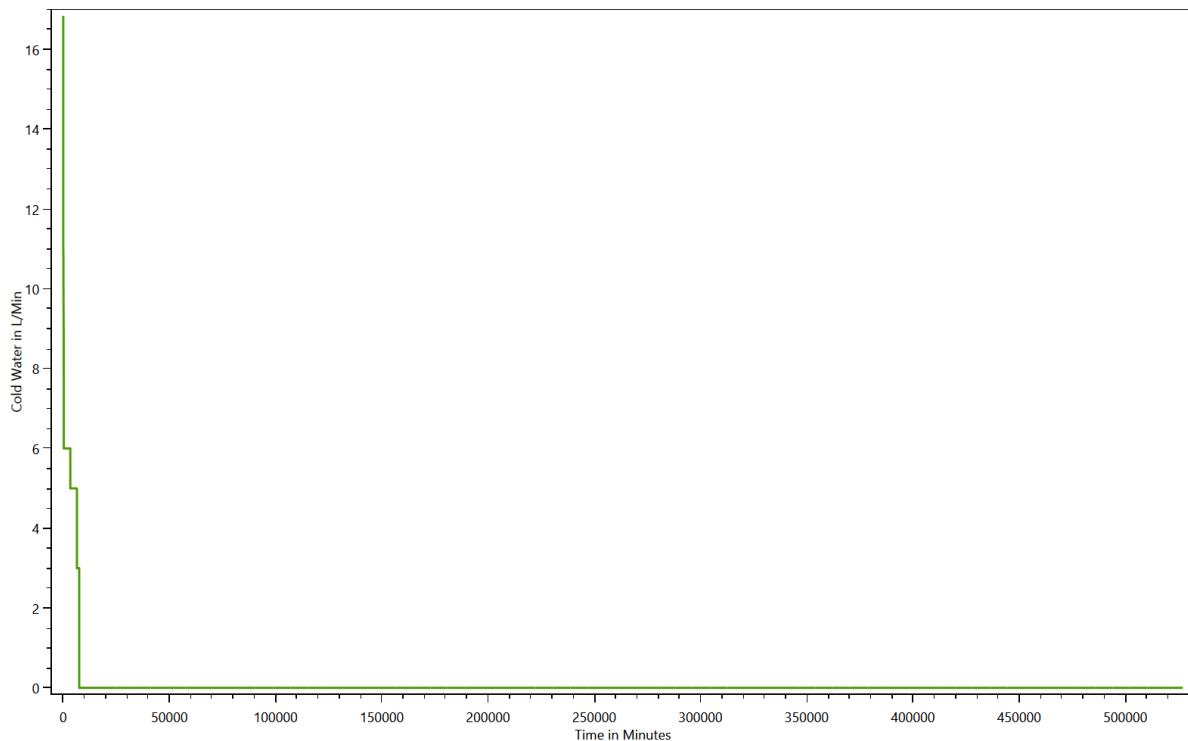


# Duration curve for each load type

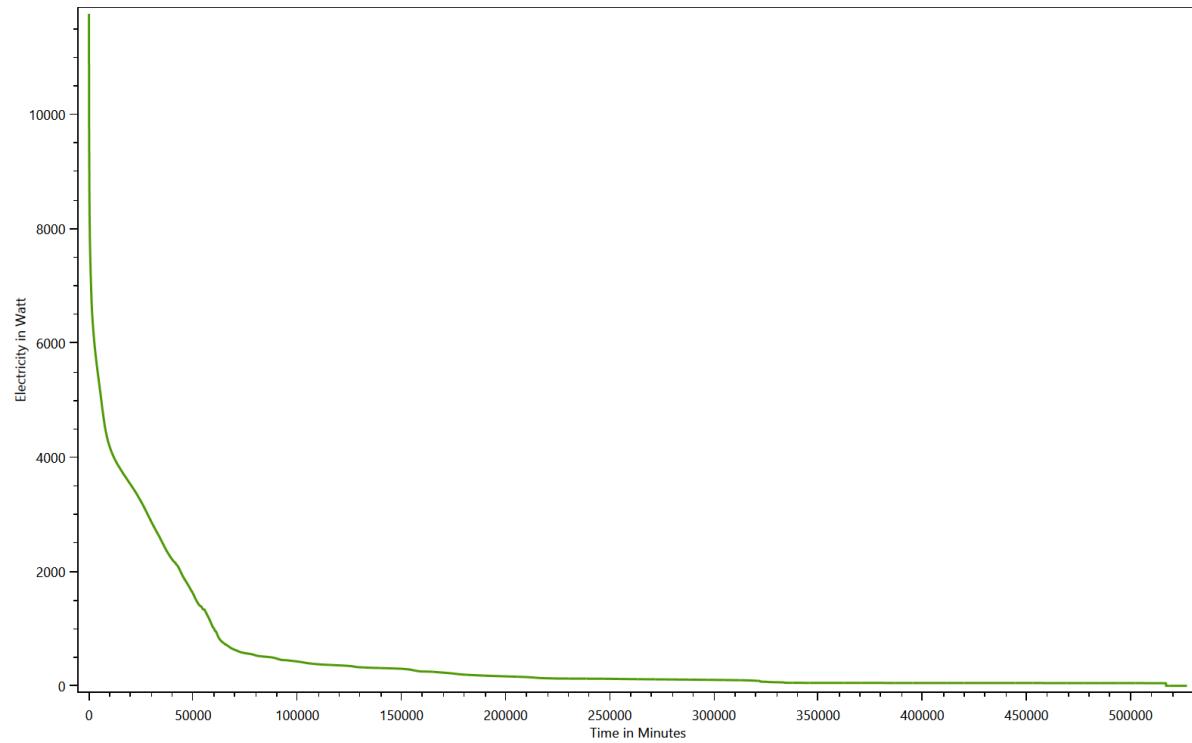
This is made from the files starting with: DurationCurve

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

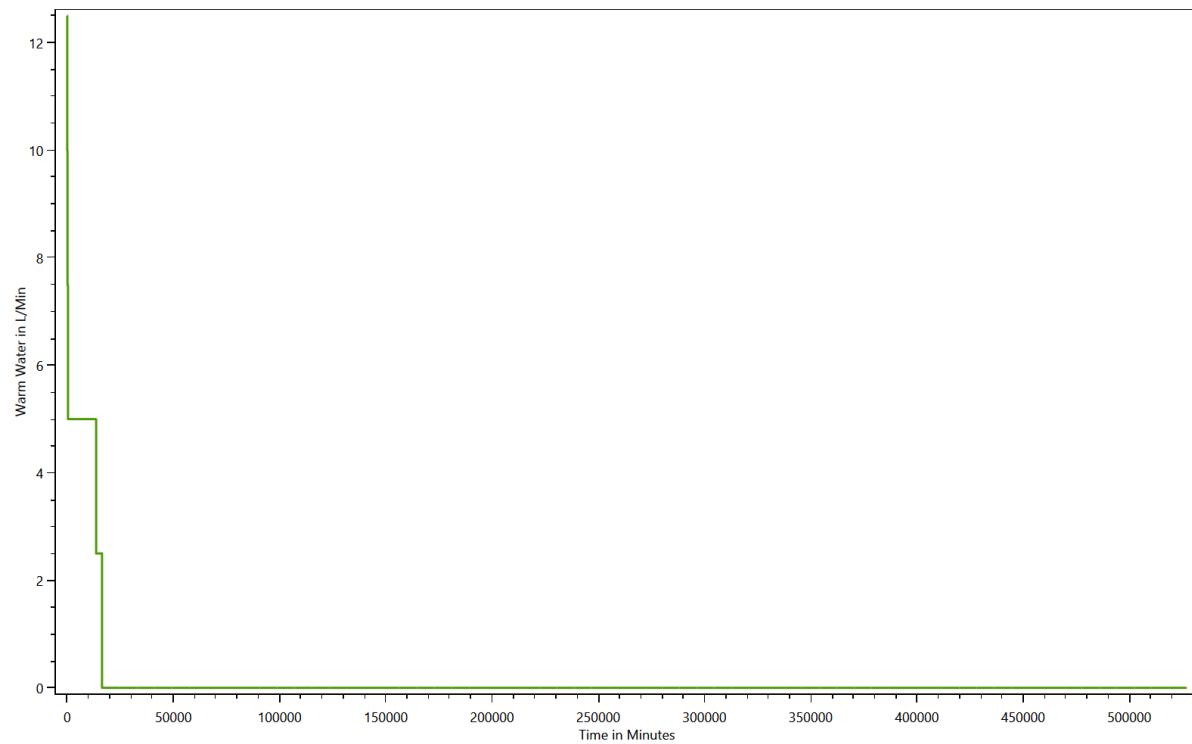
Cold Water



## Electricity



## Warm Water

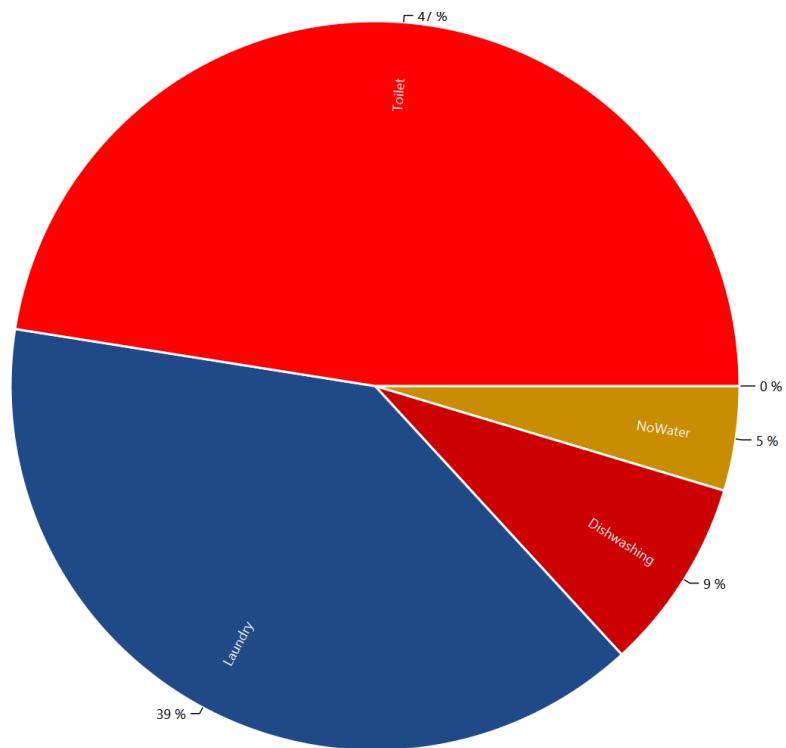


# Grouped energy use for each load type for each device

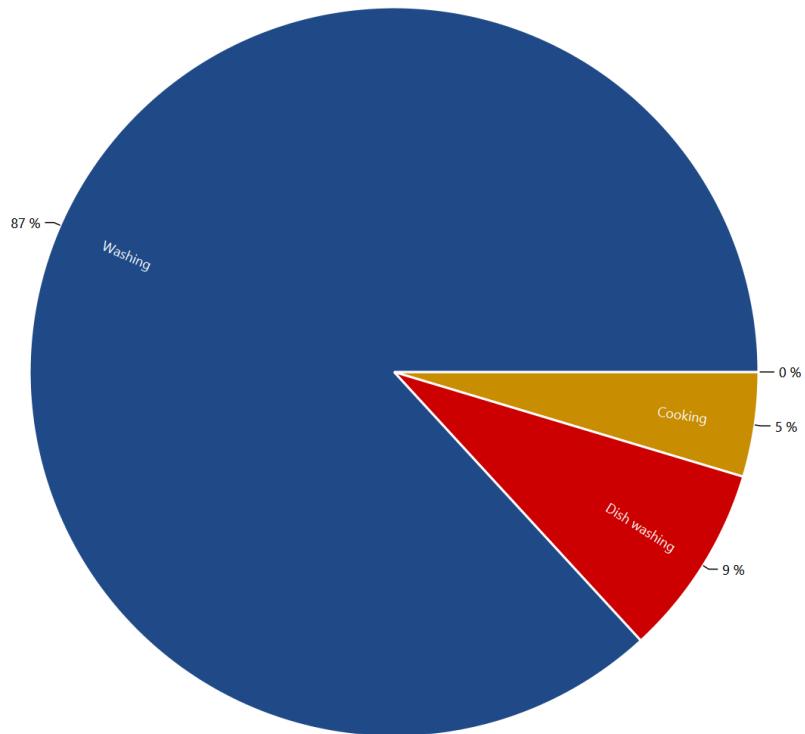
This is made from the files starting with: DeviceTaggingSet

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

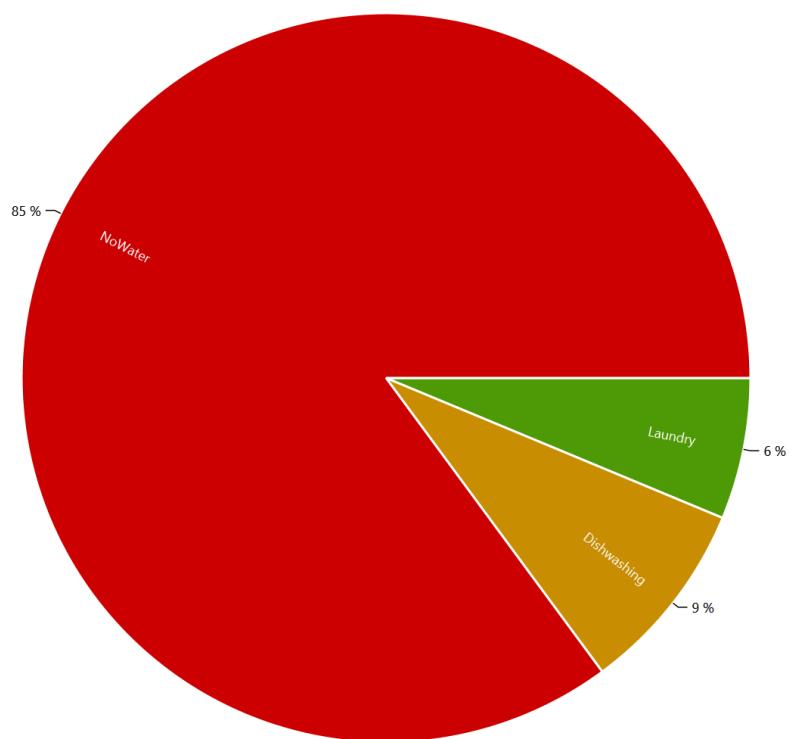
HH0 - Destatis Water Usage Statistics - Cold Water



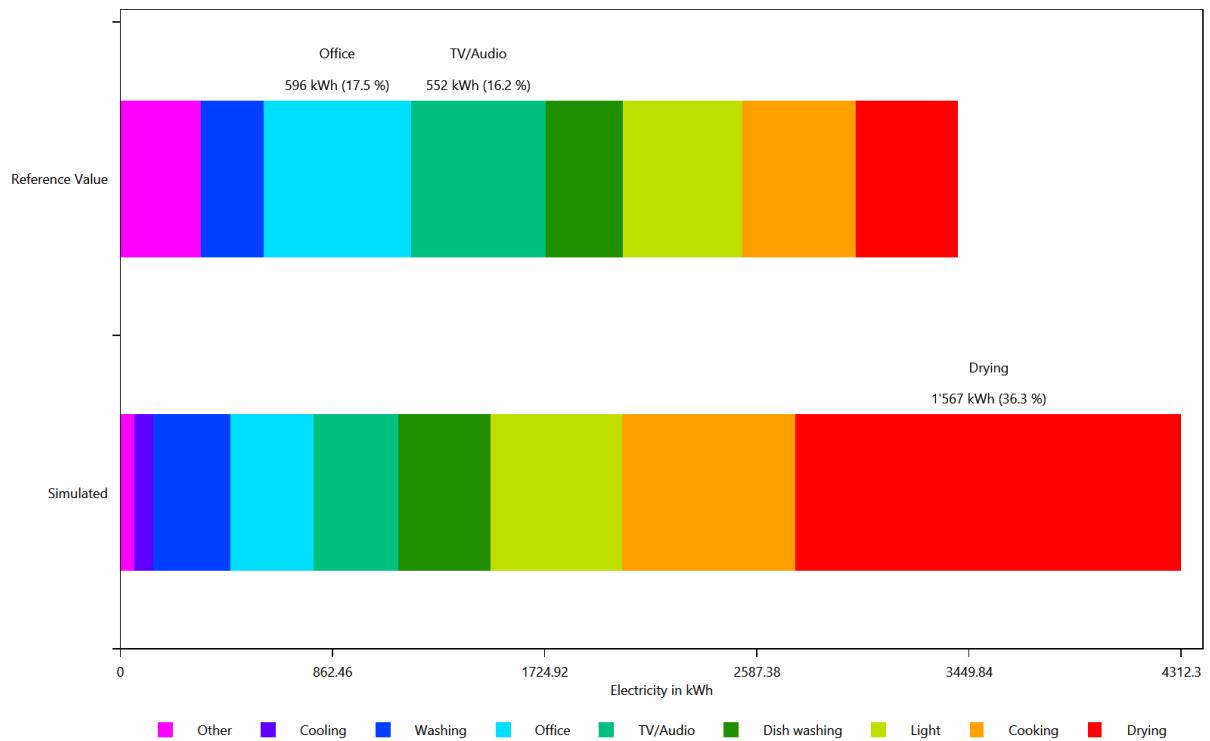
HH0 - Energieagentur - Cold Water



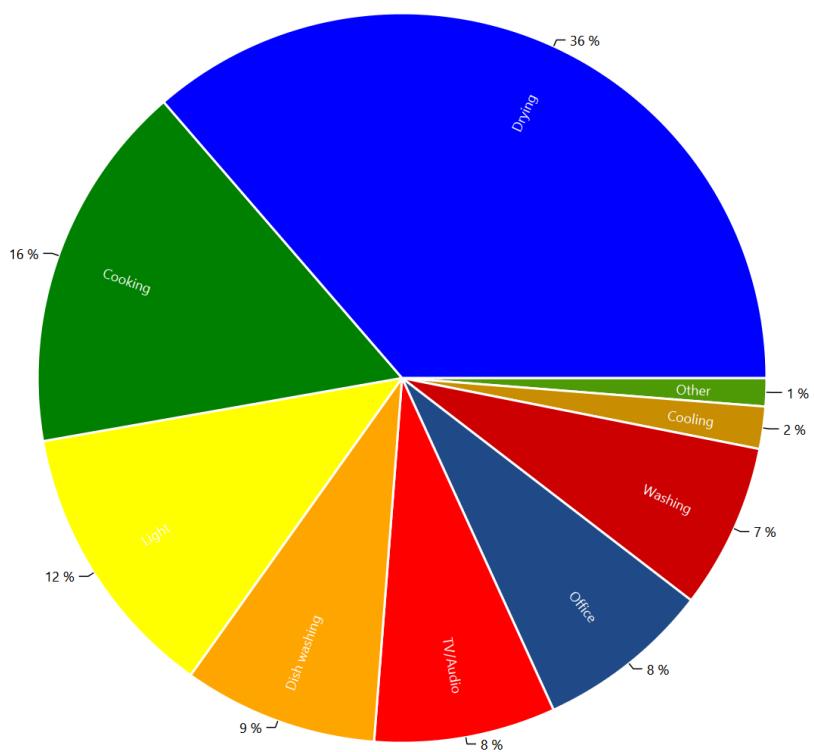
HH0 - Destatis Water Usage Statistics - Electricity



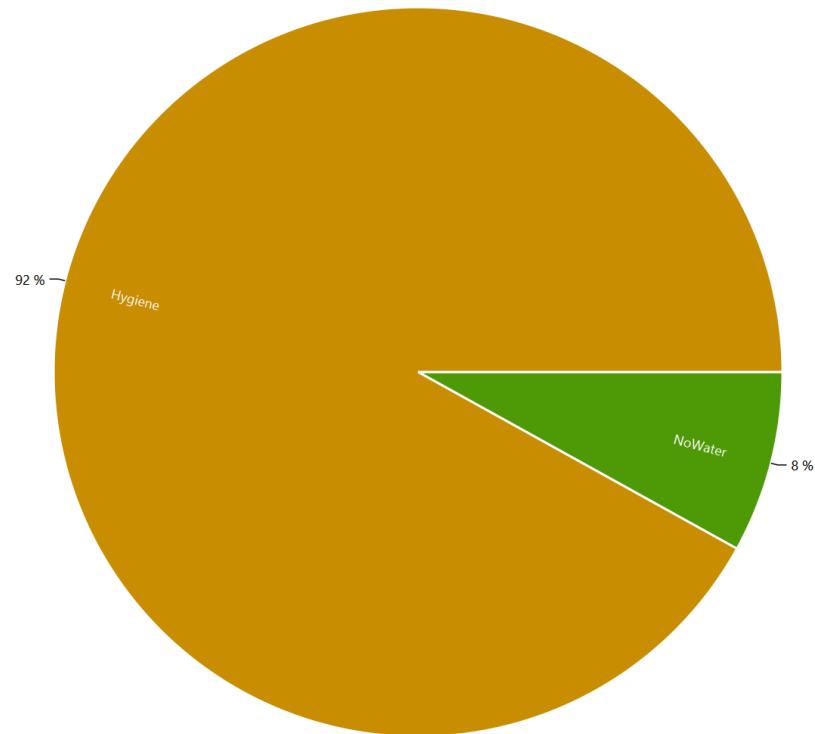
## HH0 - Energieagentur - Electricity



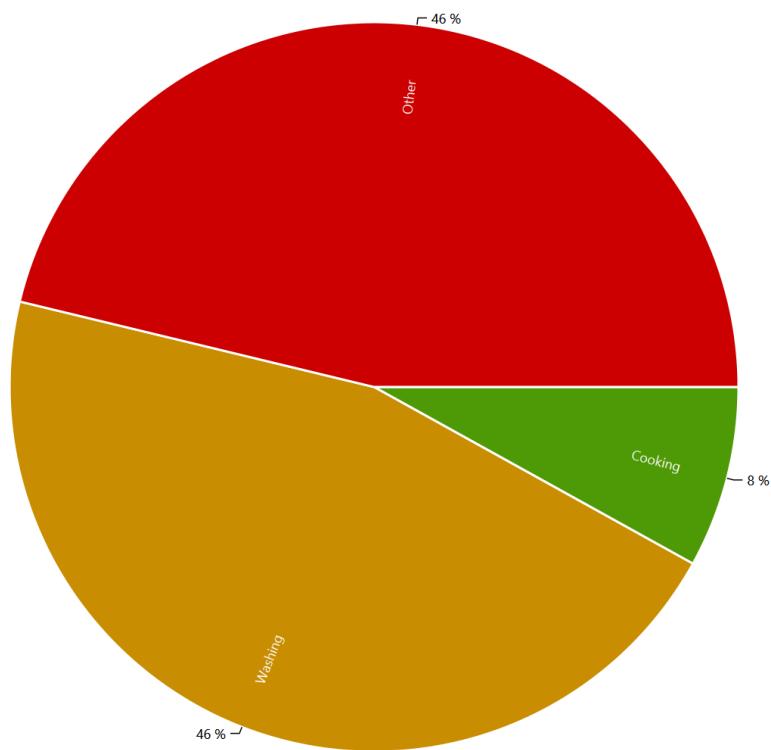
## HH0 - Energieagentur - Electricity



HH0 - Destatis Water Usage Statistics - Warm Water



HH0 - Energieagentur - Warm Water

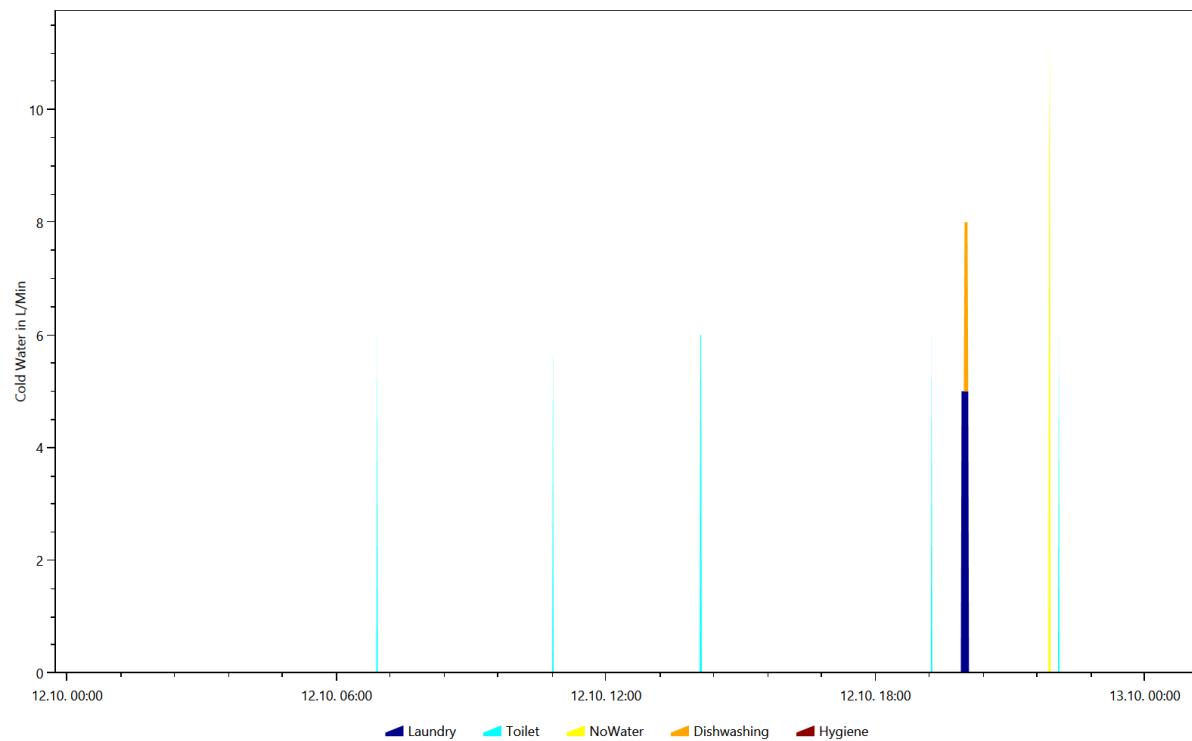


# Example of the device profiles for each load type

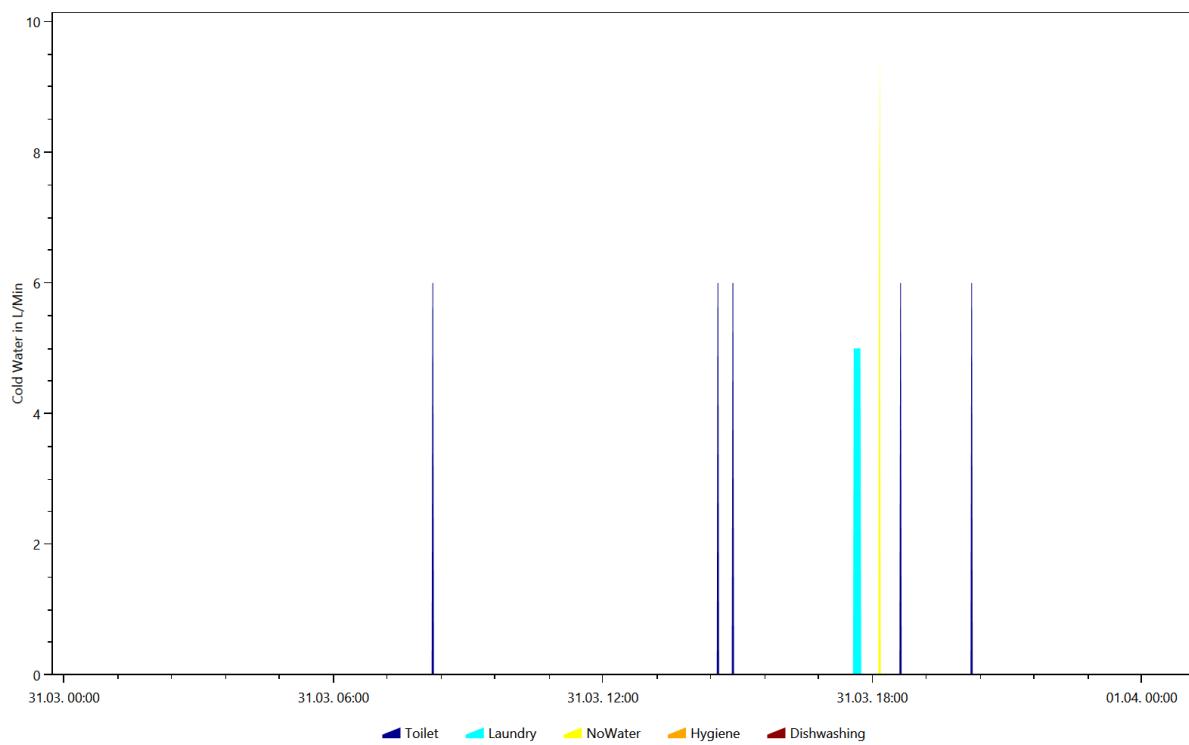
This is made from the files starting with: DeviceProfiles

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

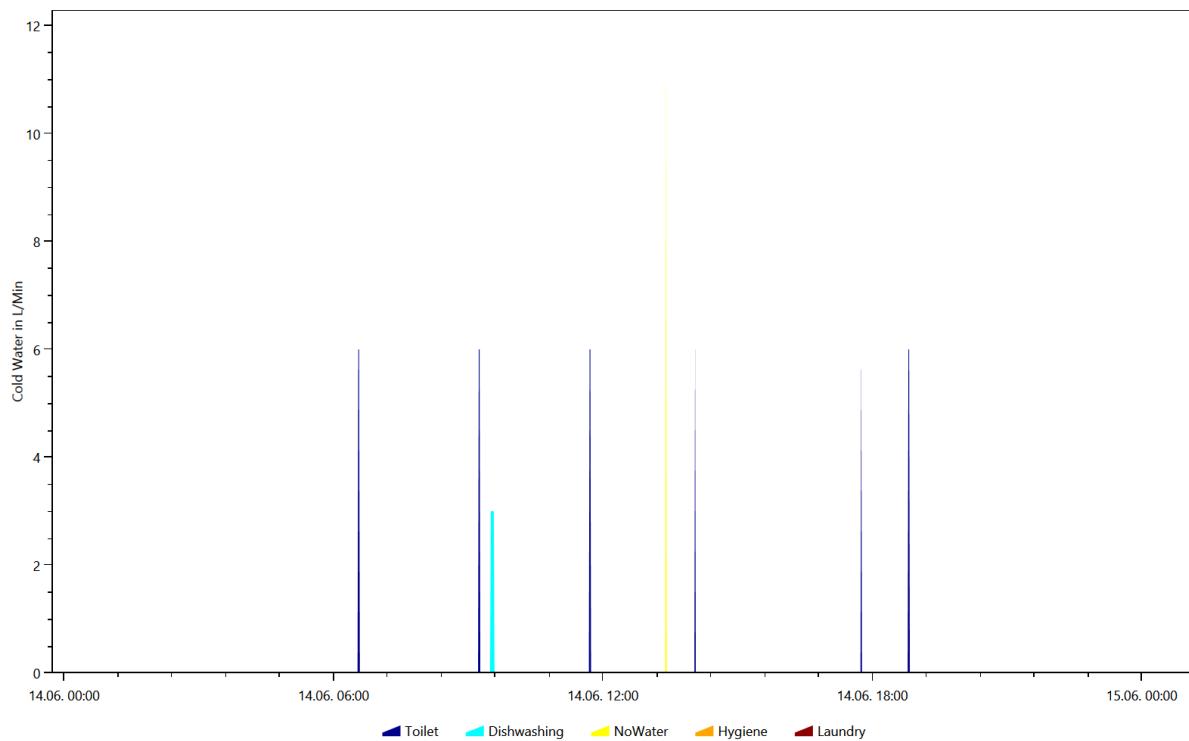
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.10.12



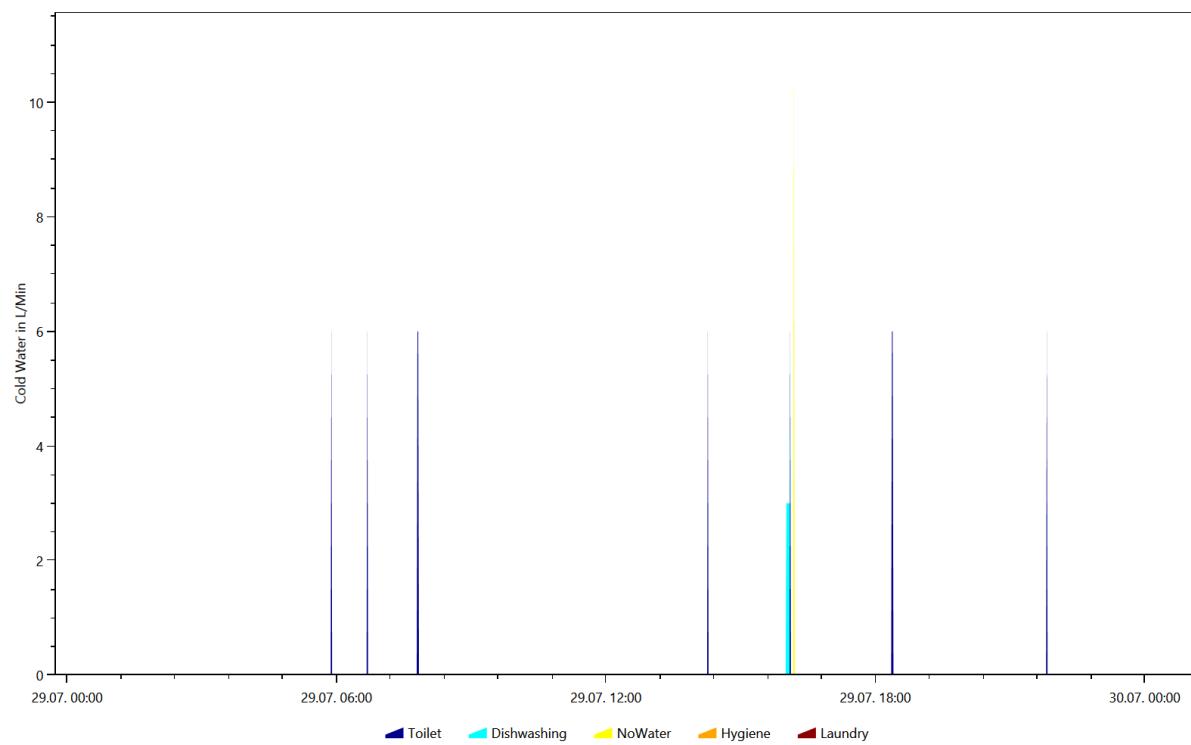
## Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.3.31



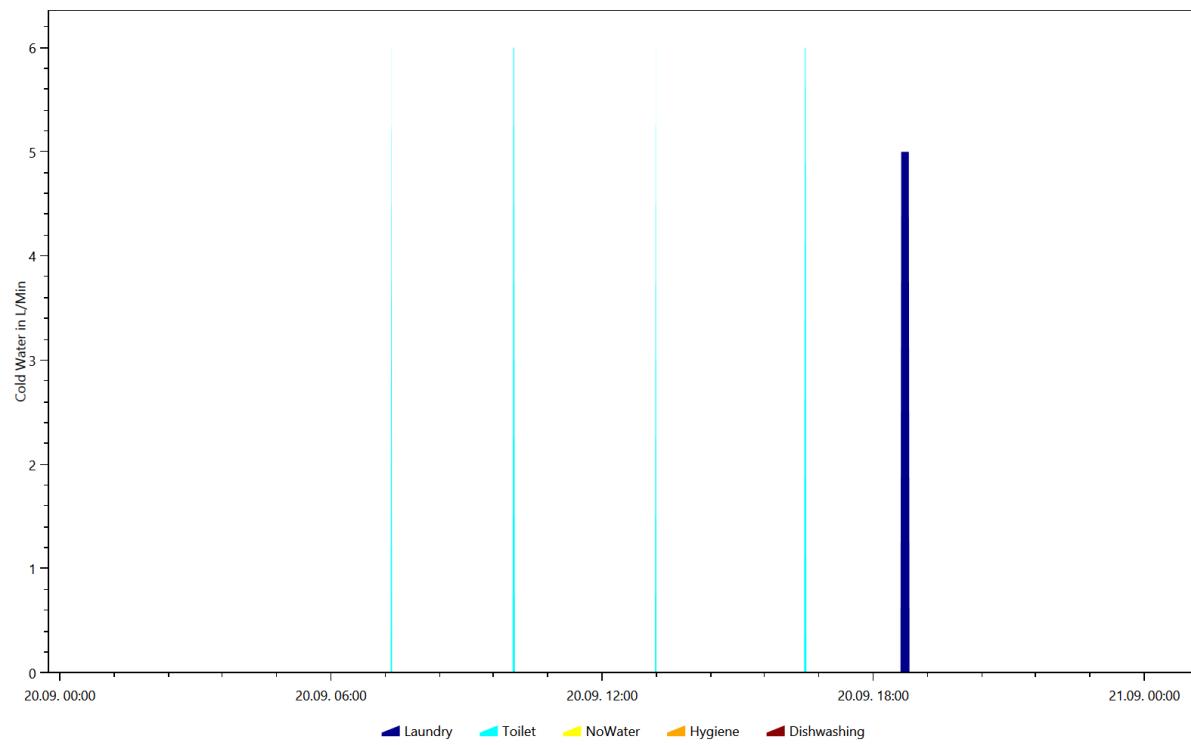
## Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.6.14



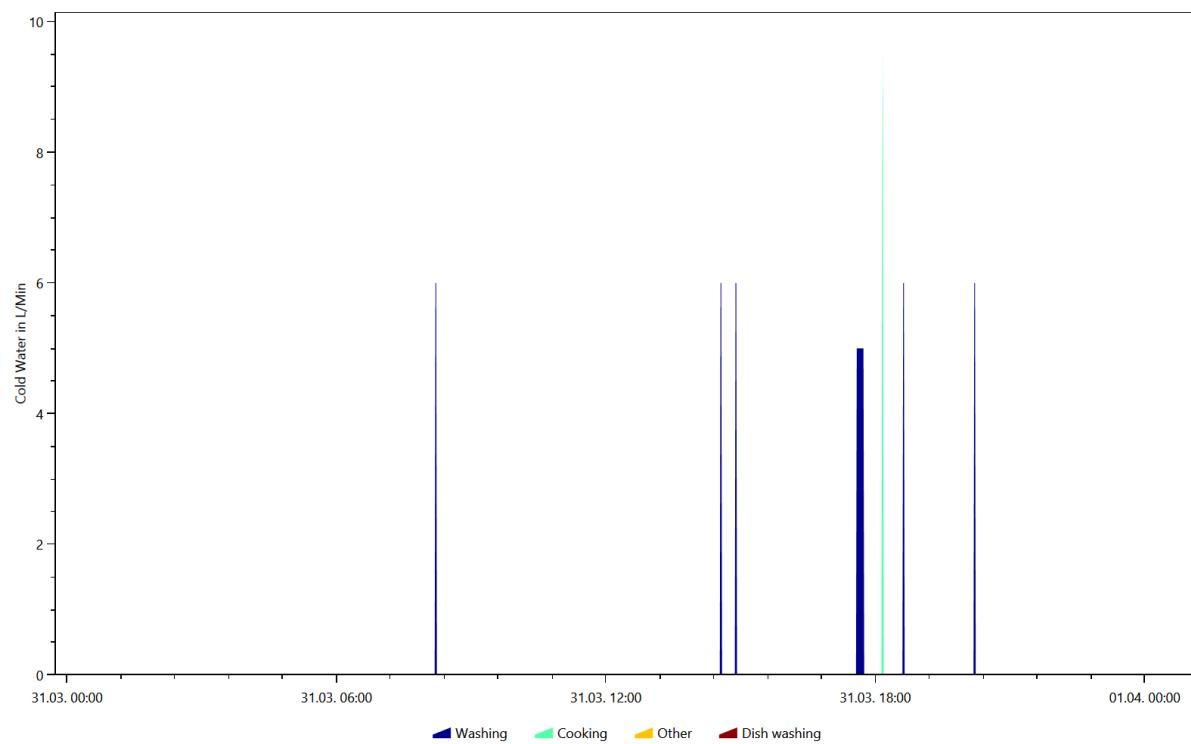
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date  
2016.7.29



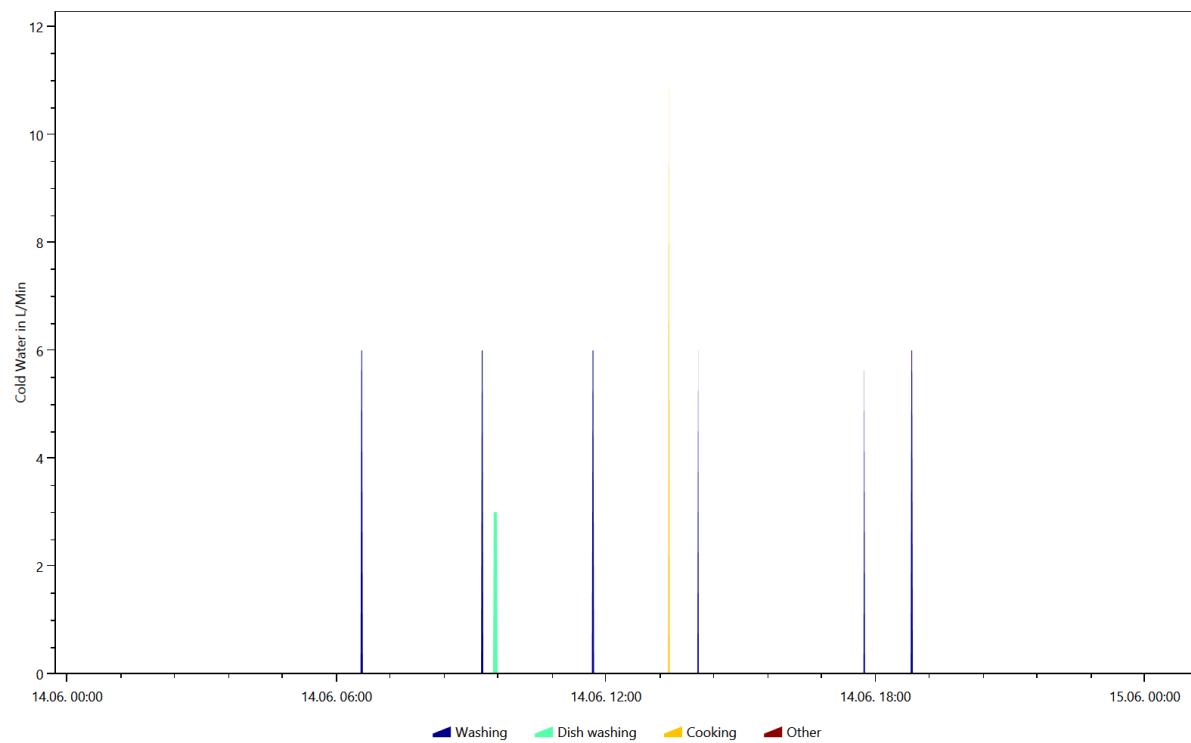
Cold Water, Coloring Scheme: Destatis Water Usage Statistics, Date  
2016.9.20



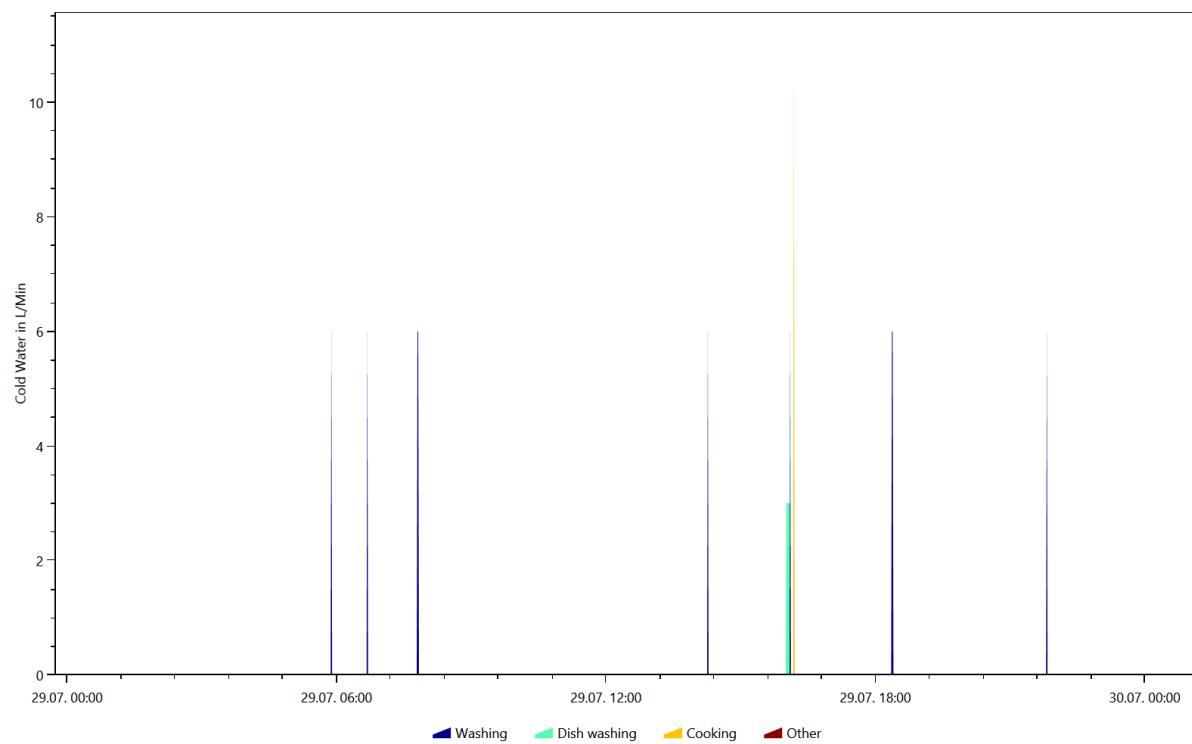
## Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.3.31



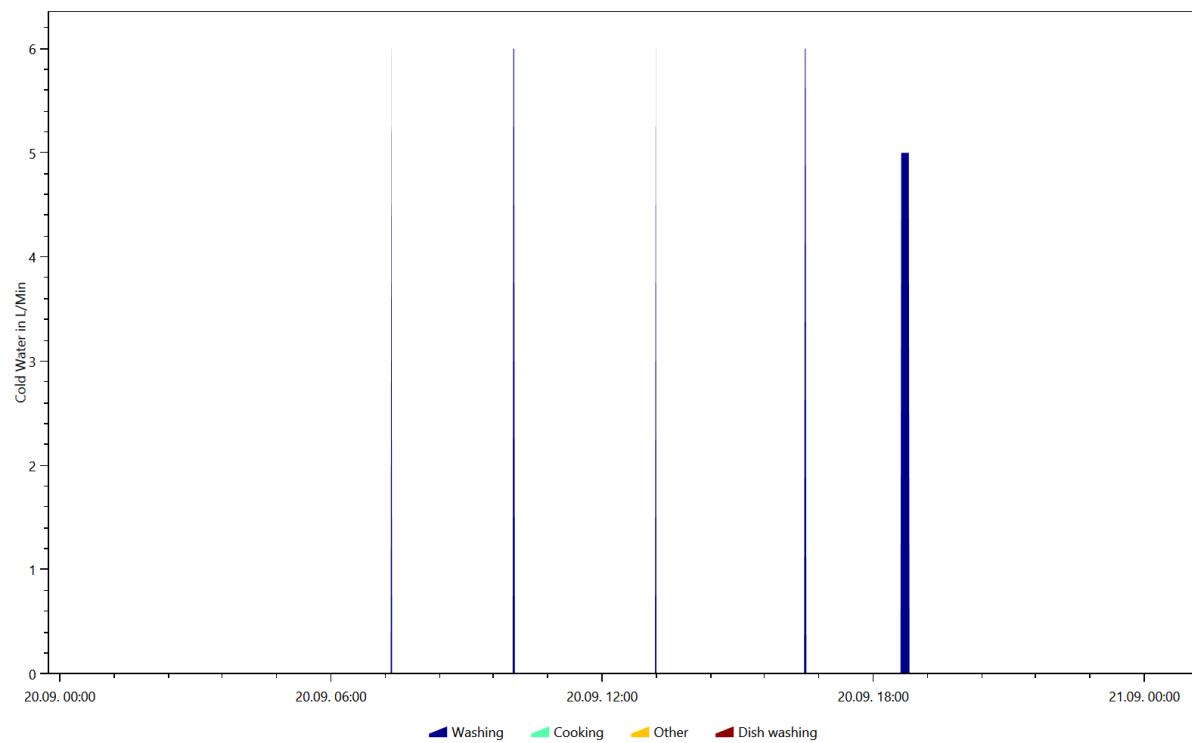
## Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.6.14



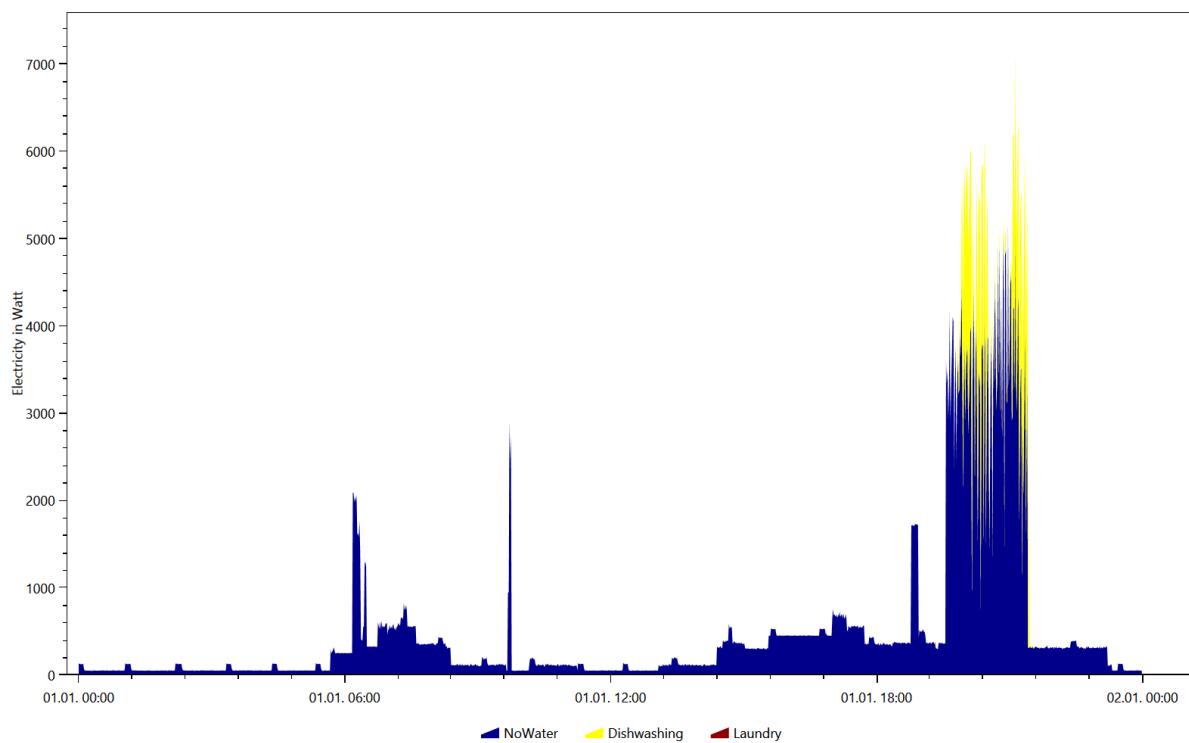
## Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.7.29



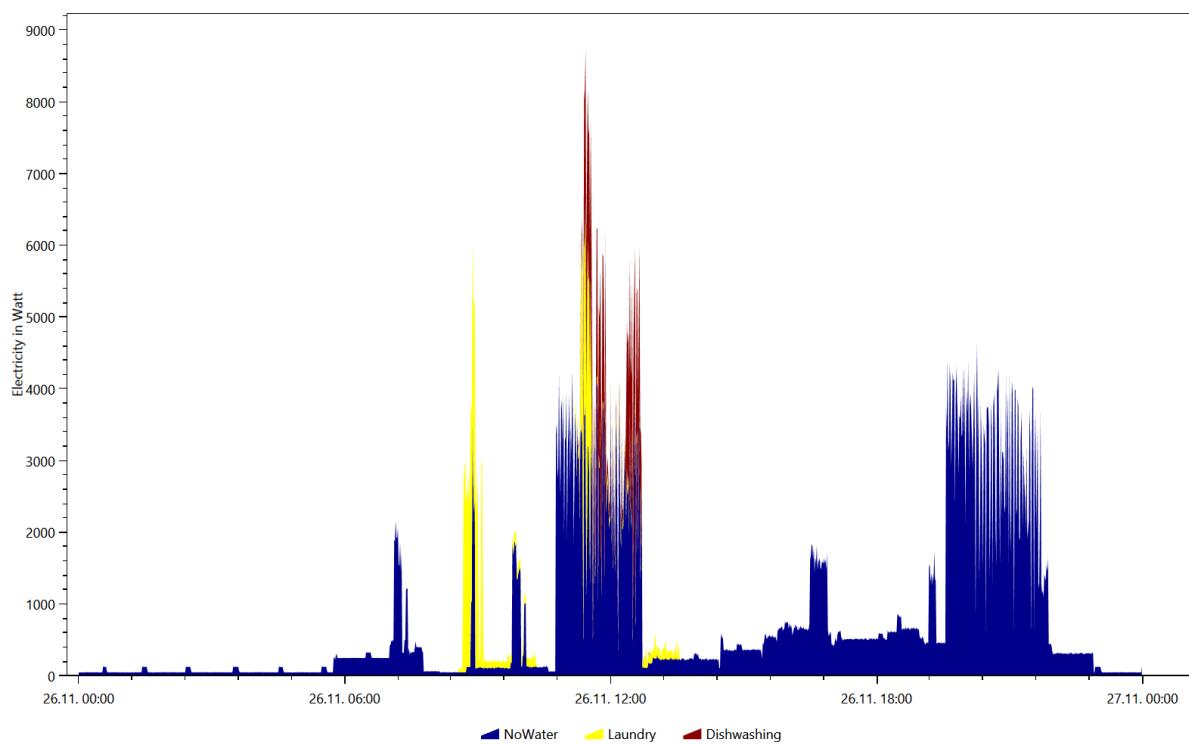
## Cold Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.9.20



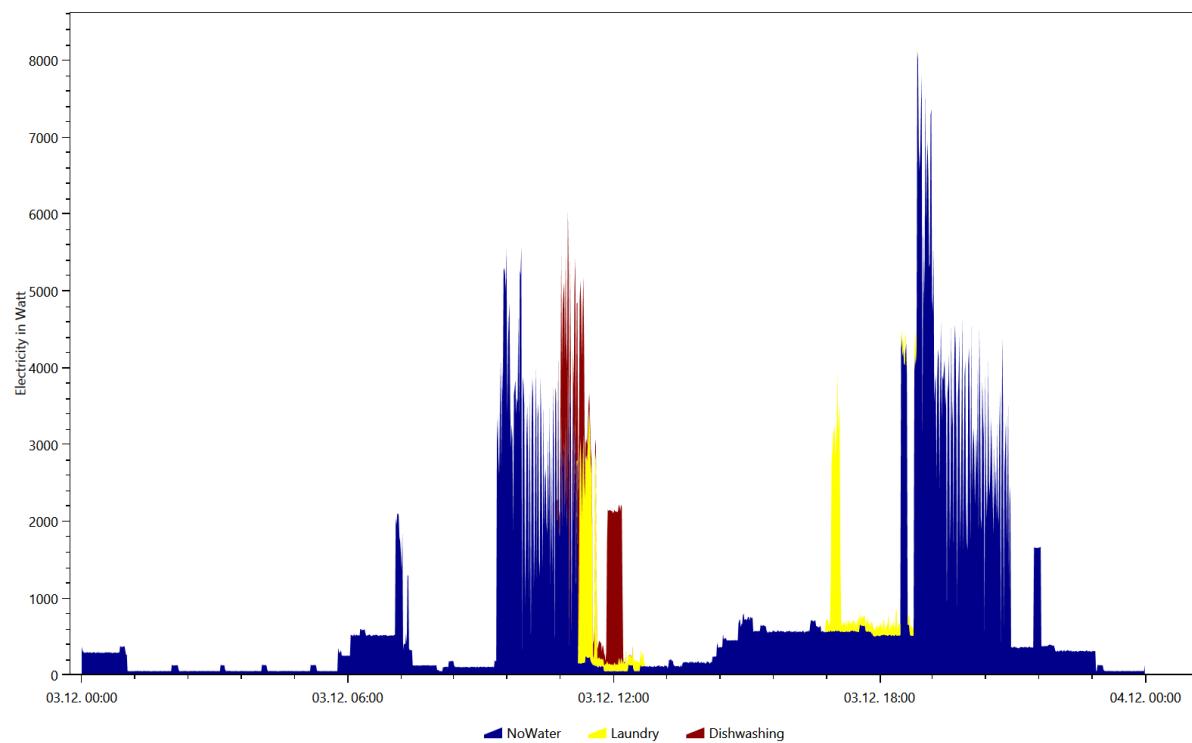
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.1.1



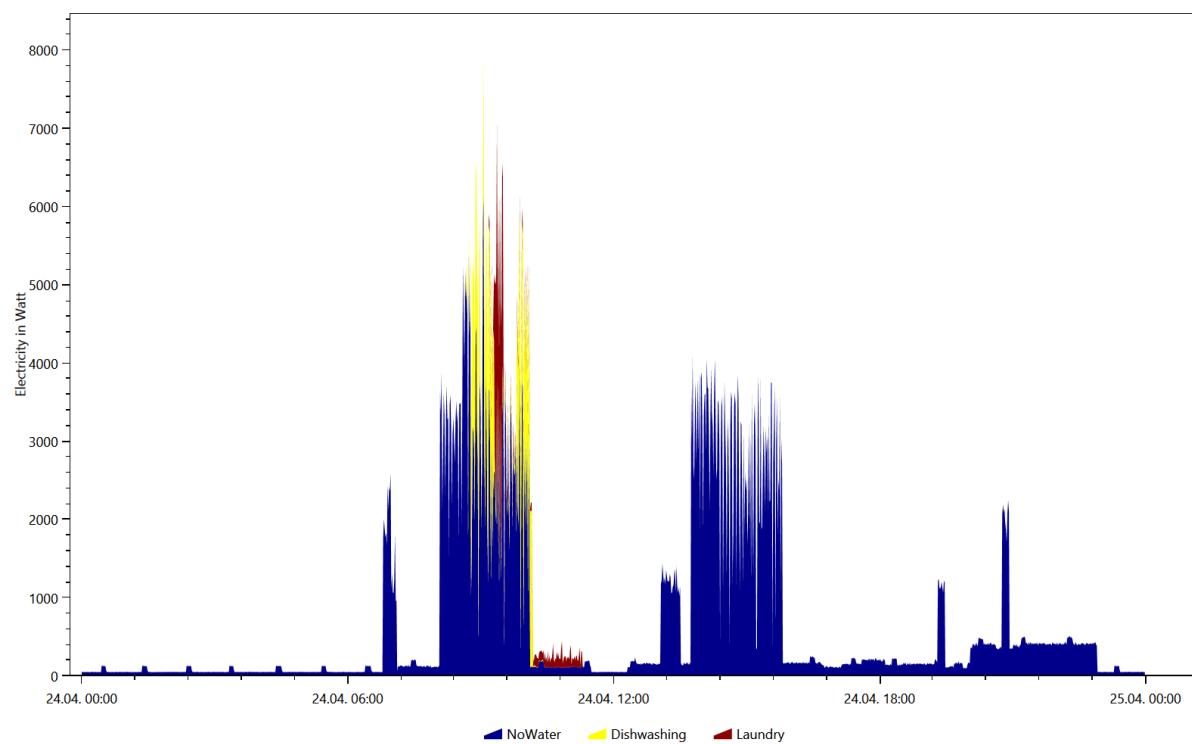
Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.11.26



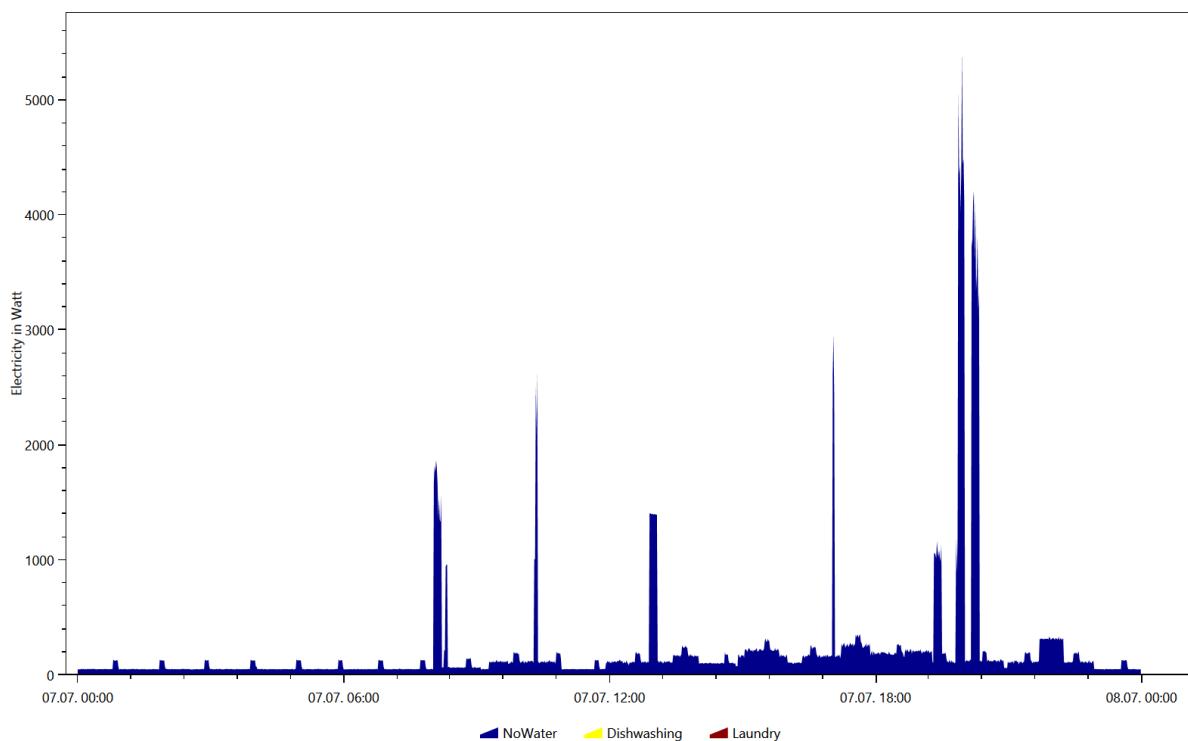
## Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.12.3



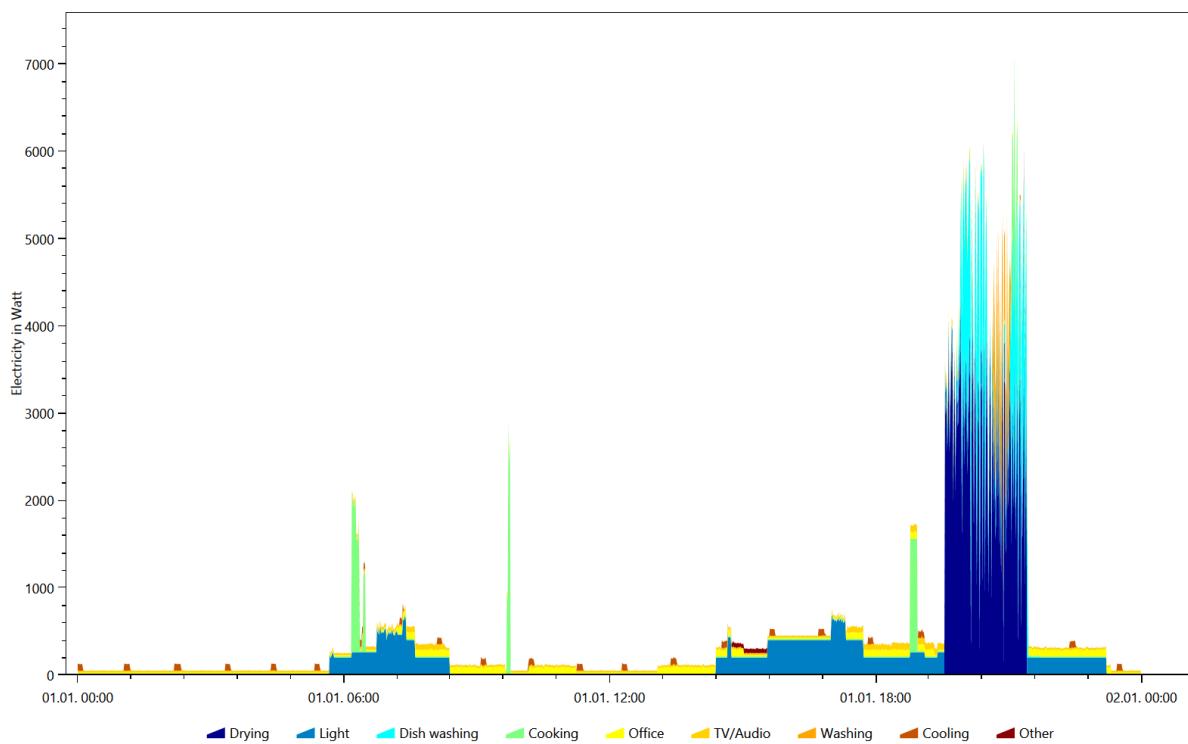
## Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.4.24



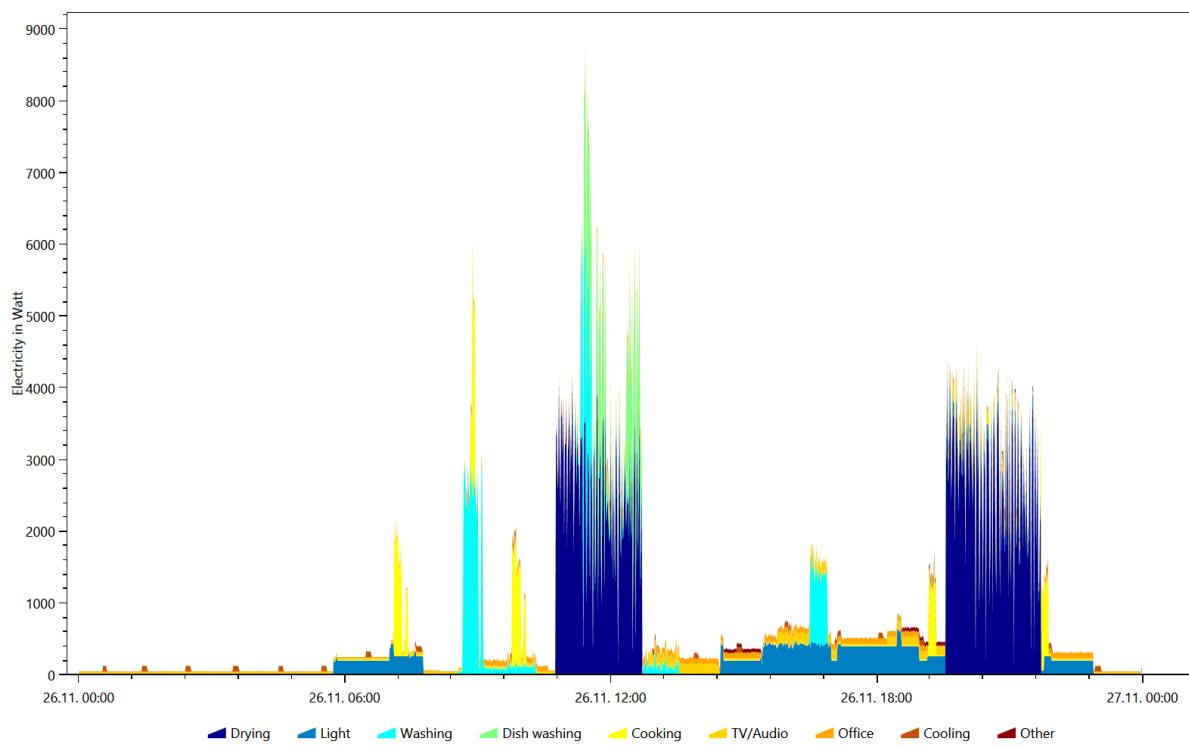
## Electricity, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.7.7



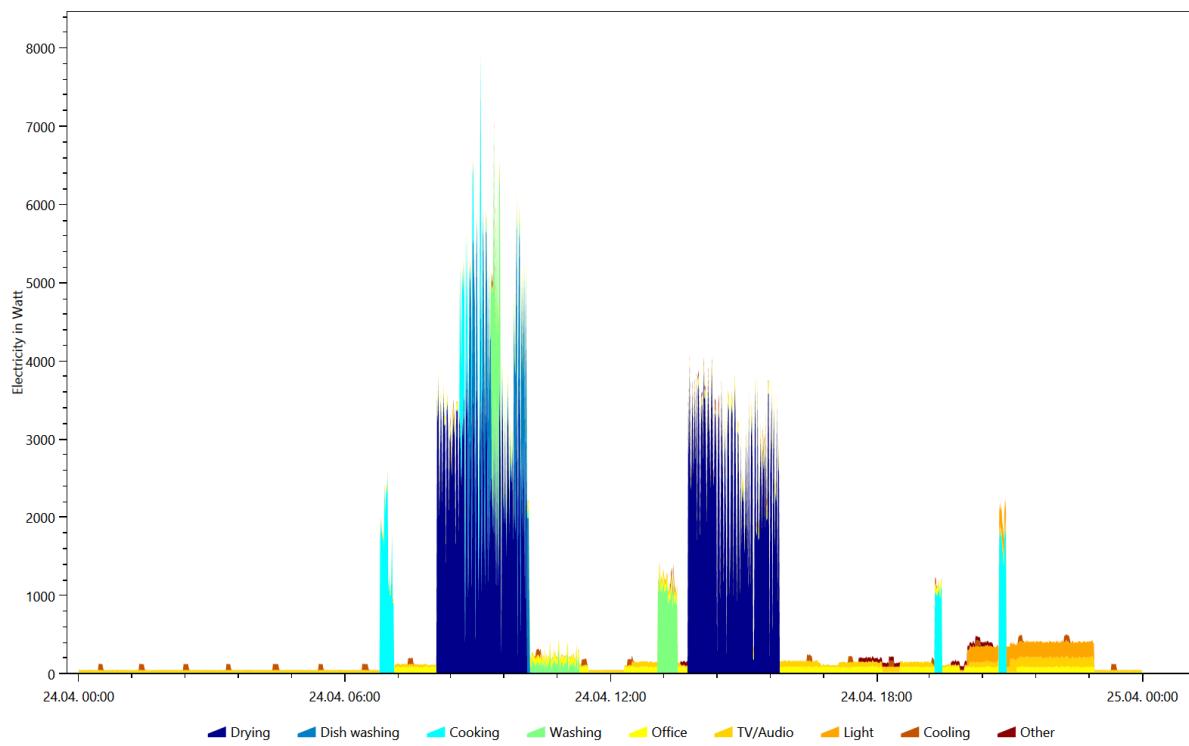
## Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.1.1



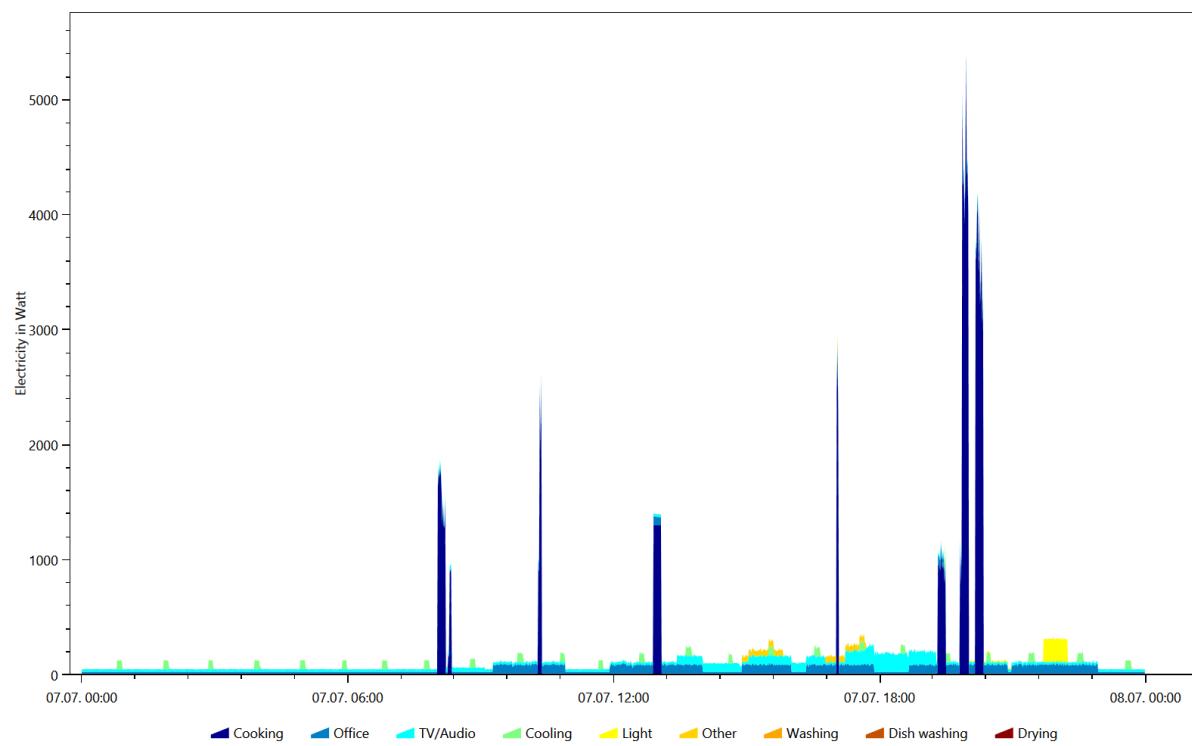
## Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.11.26



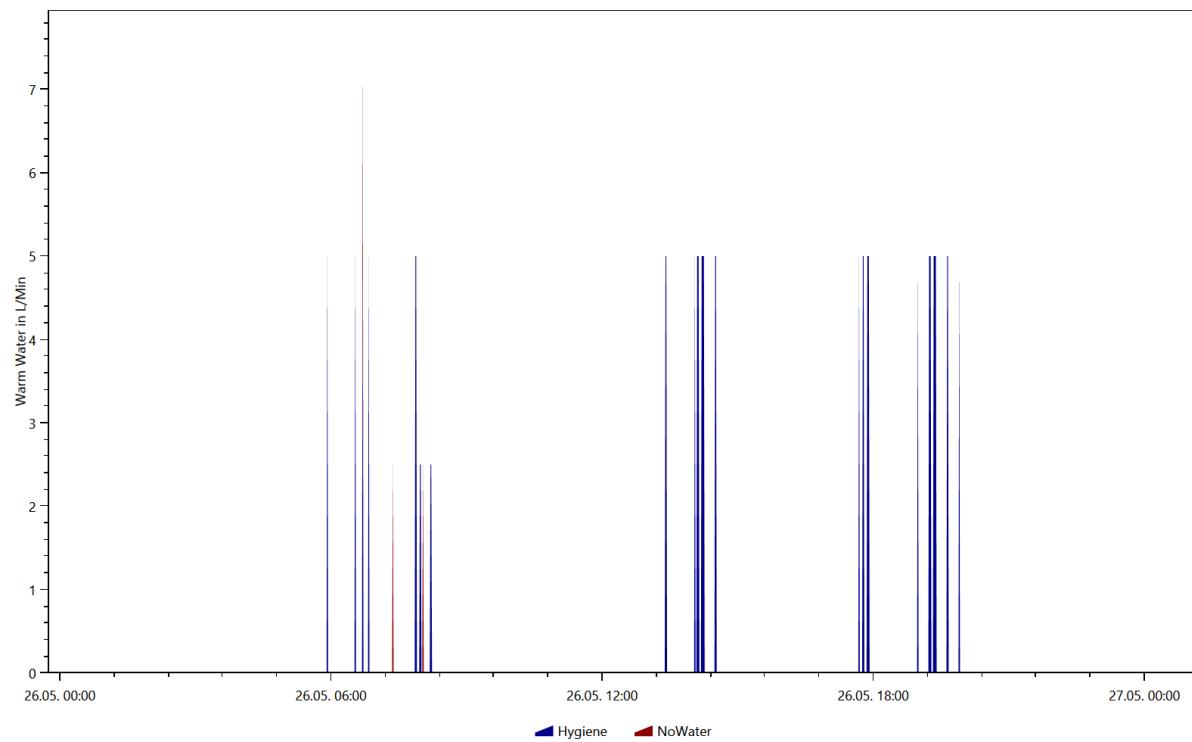
## Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.4.24



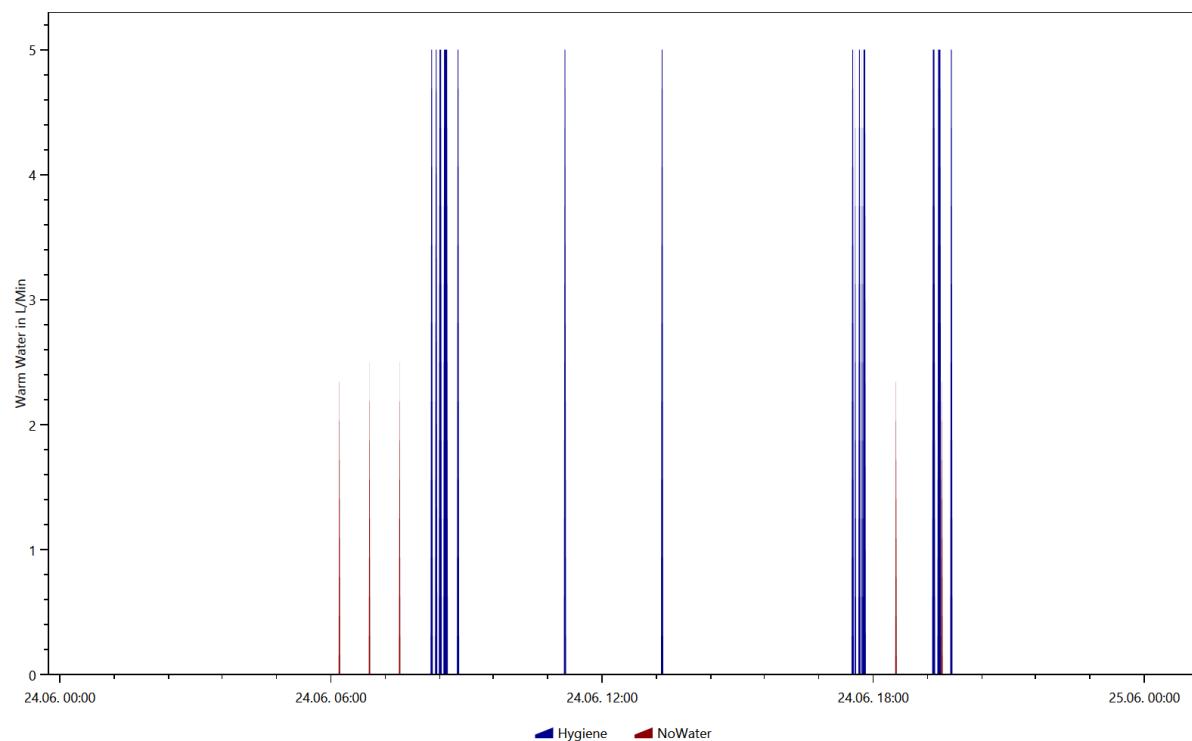
## Electricity, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.7.7



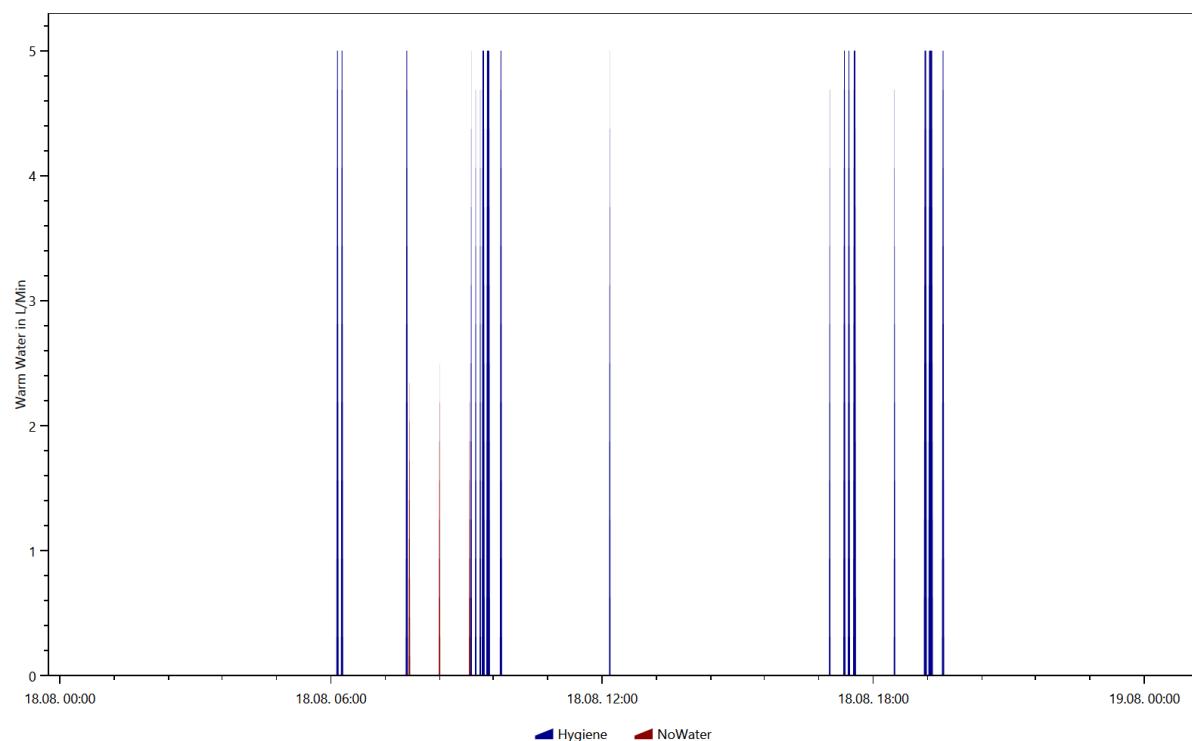
## Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date 2016.5.26



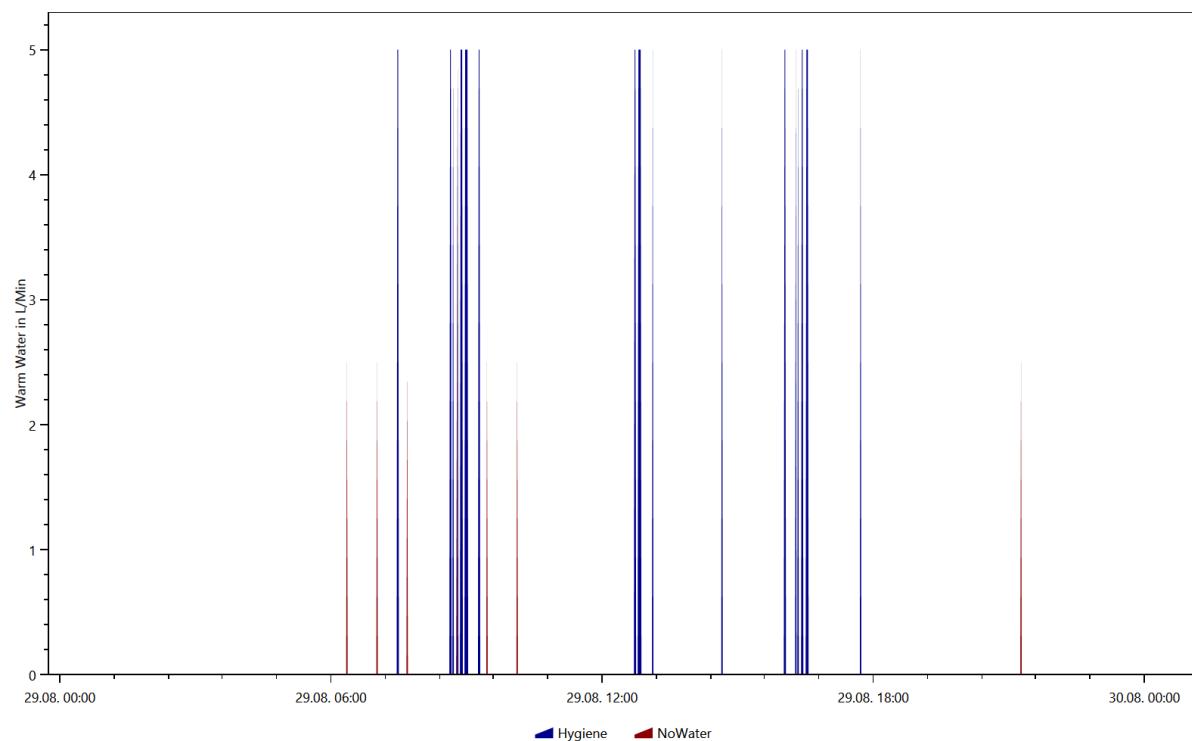
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date  
2016.6.24



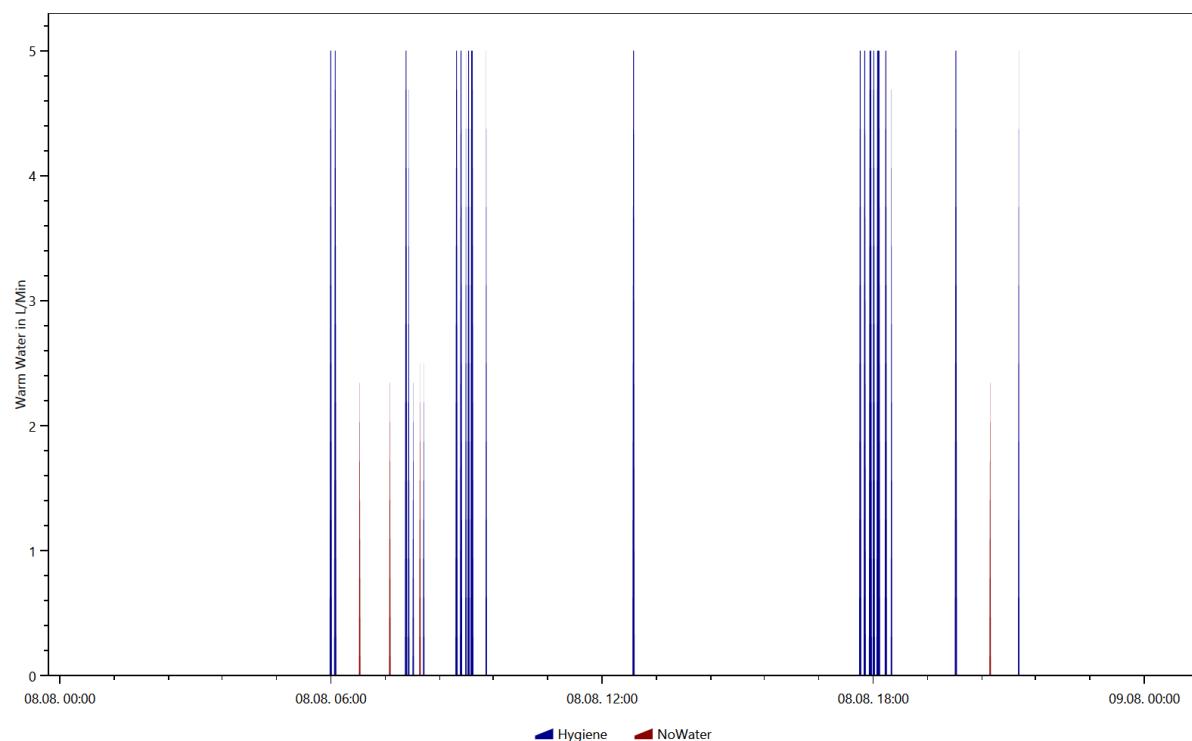
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date  
2016.8.18



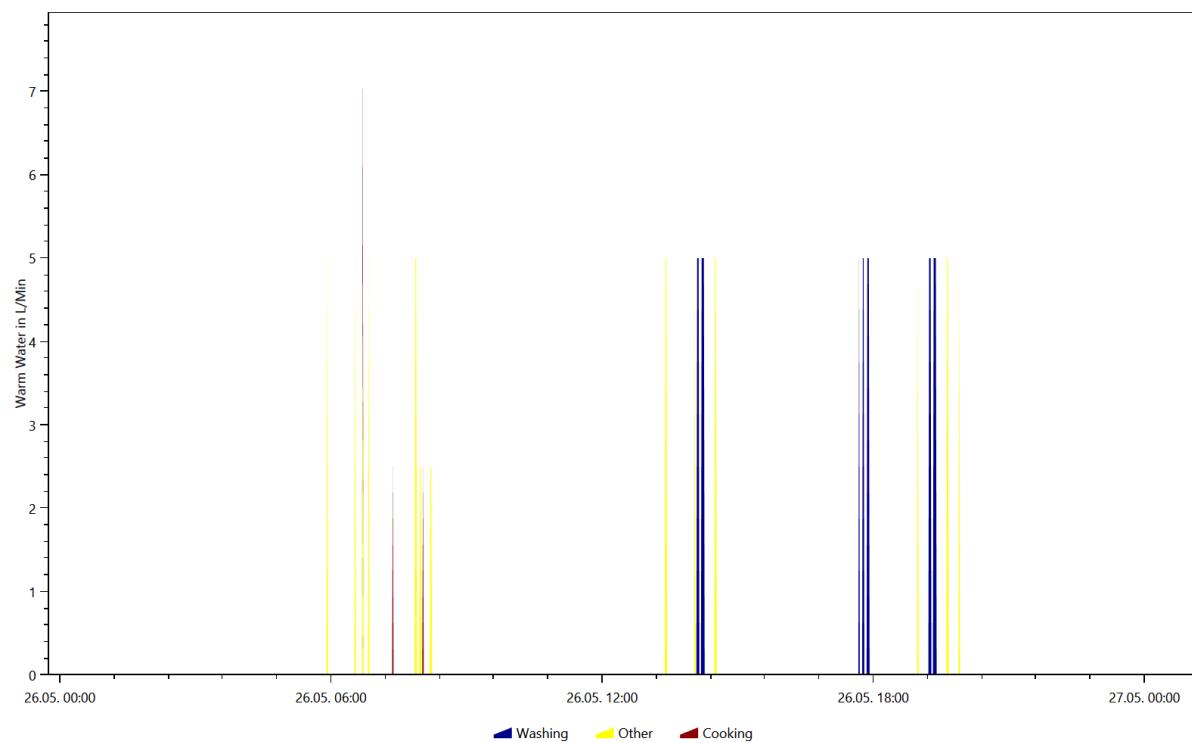
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date  
2016.8.29



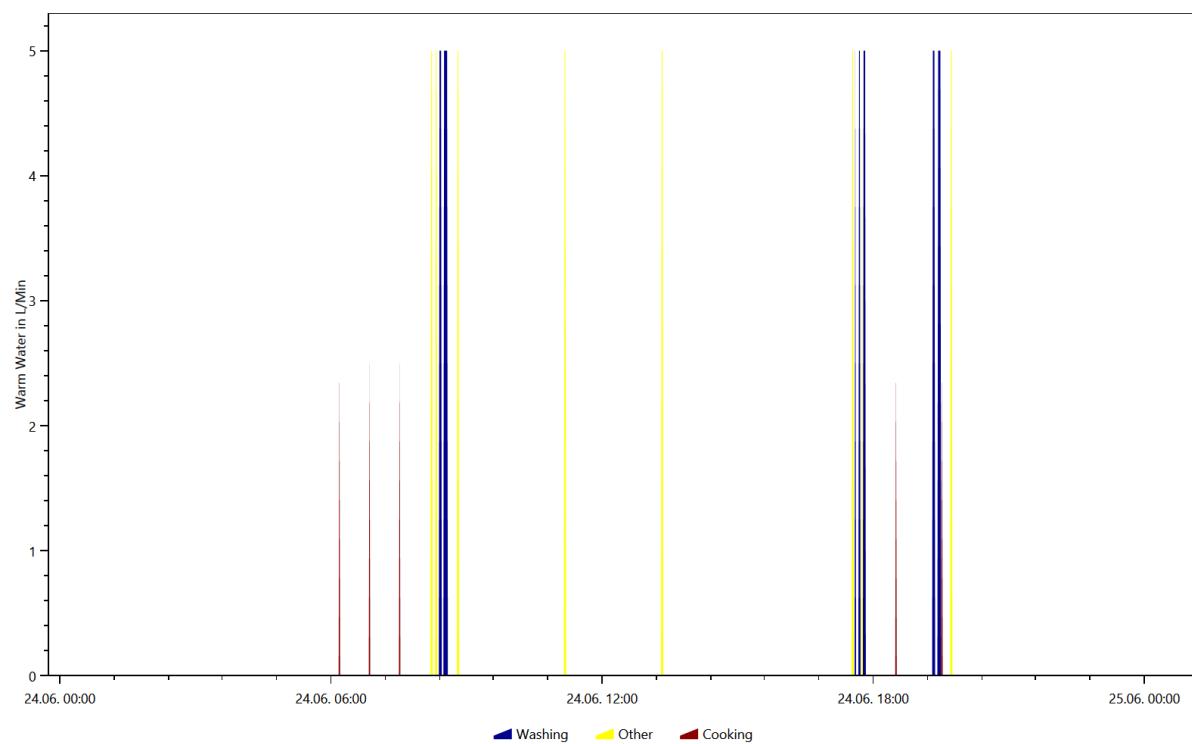
Warm Water, Coloring Scheme: Destatis Water Usage Statistics, Date  
2016.8.8



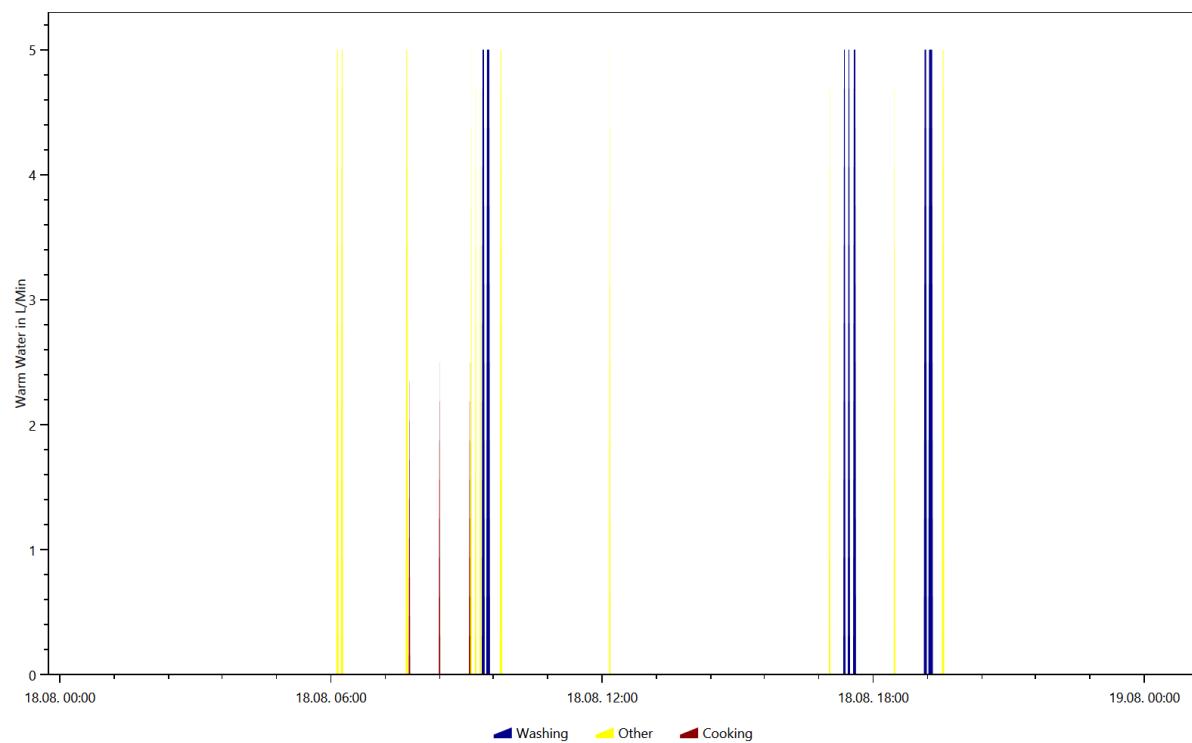
Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date  
2016.5.26



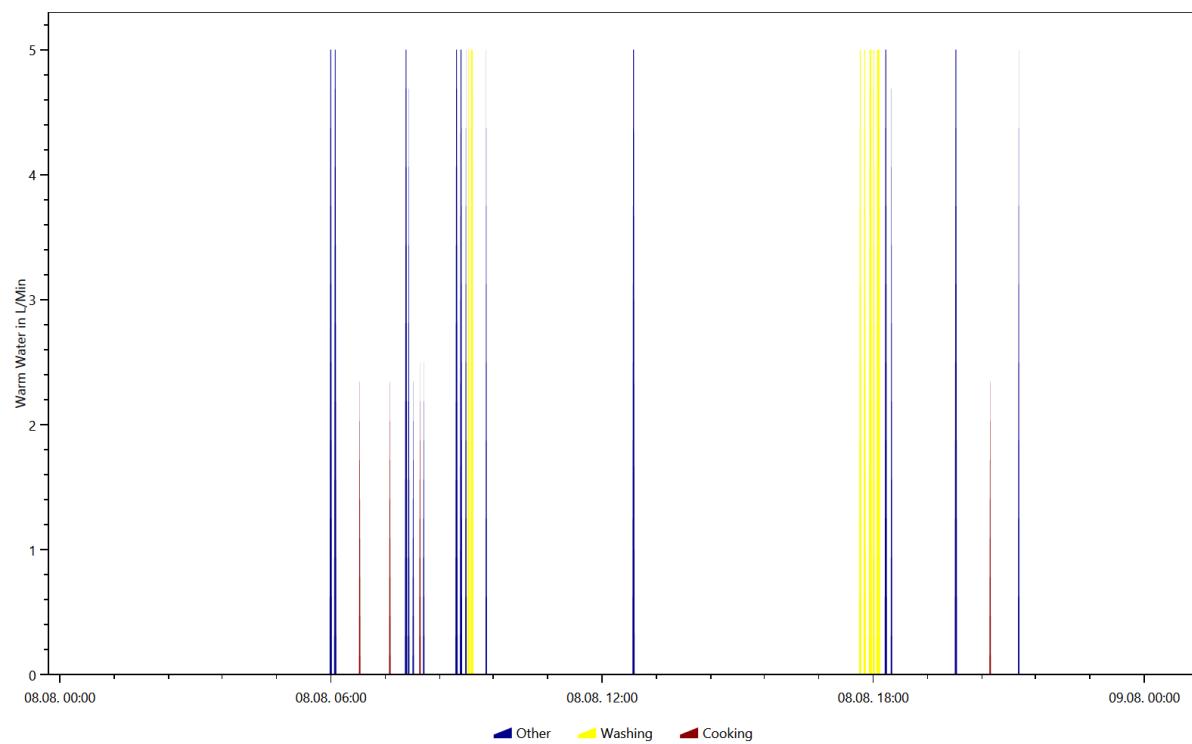
Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date  
2016.6.24



## Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.8.18



## Warm Water, Coloring Scheme: Energieagentur.NRW Tags, Date 2016.8.8

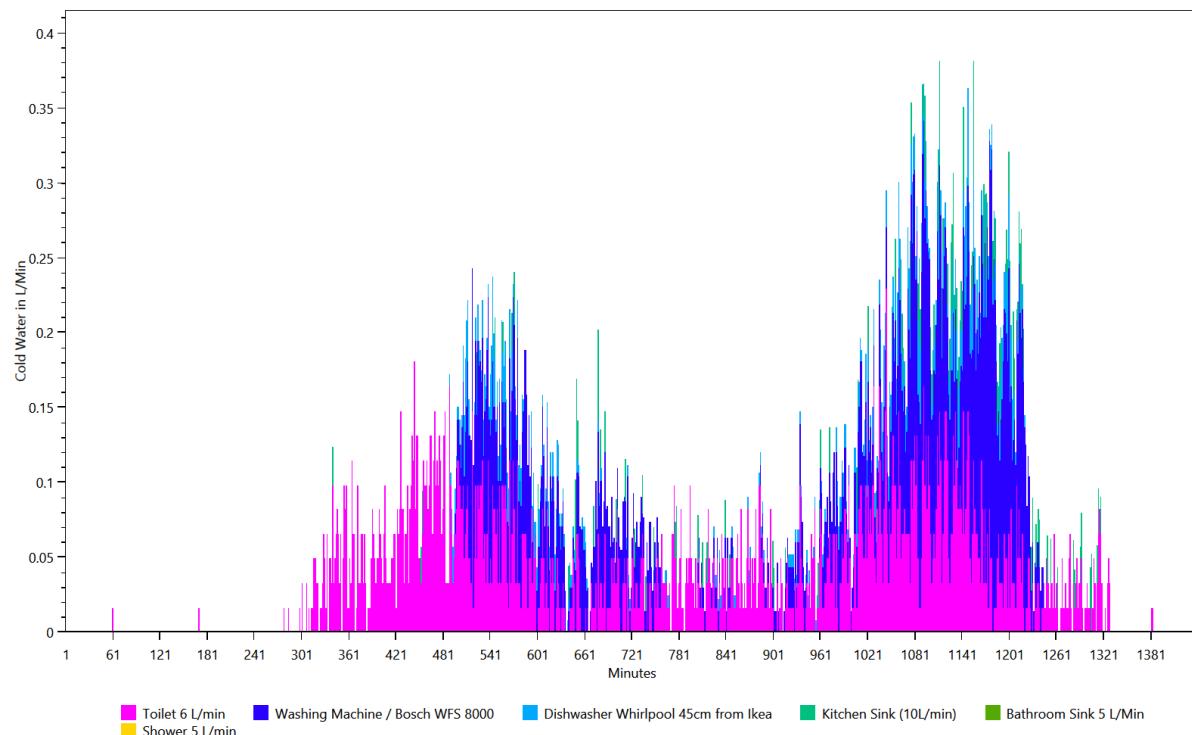


# Overview of the time and power of the use per load type per device

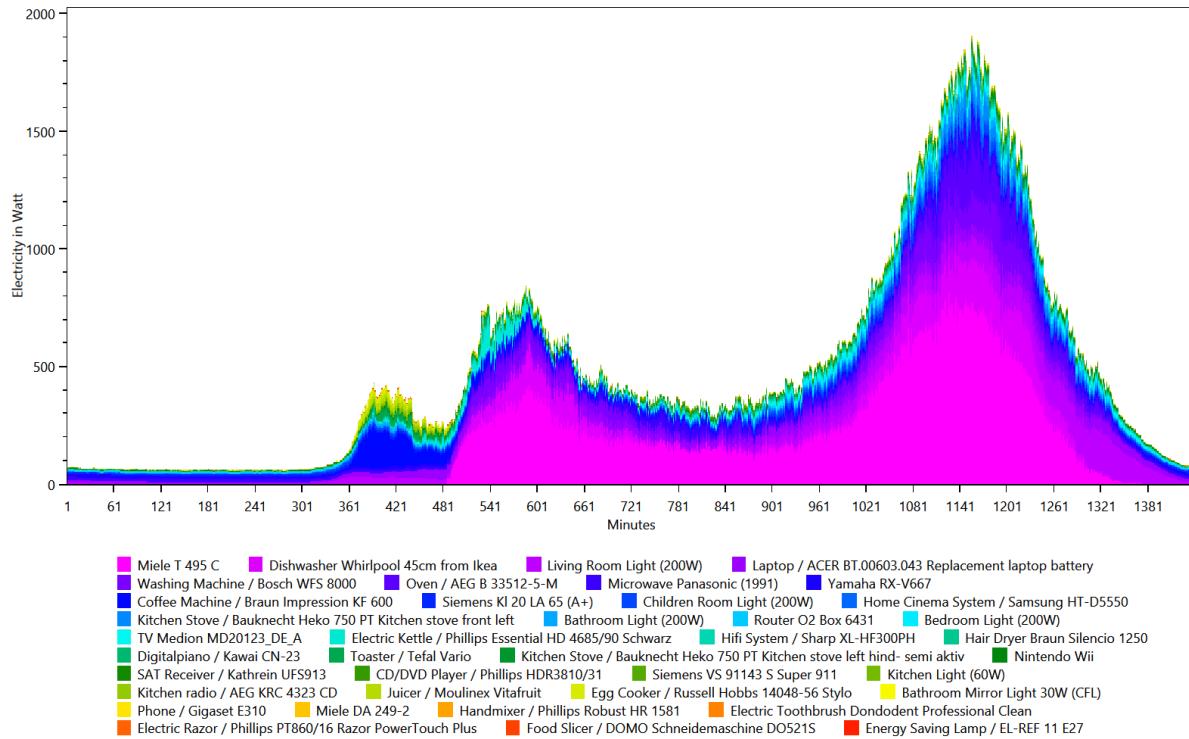
This is made from the files starting with: TimeOfUseEnergyProfiles

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

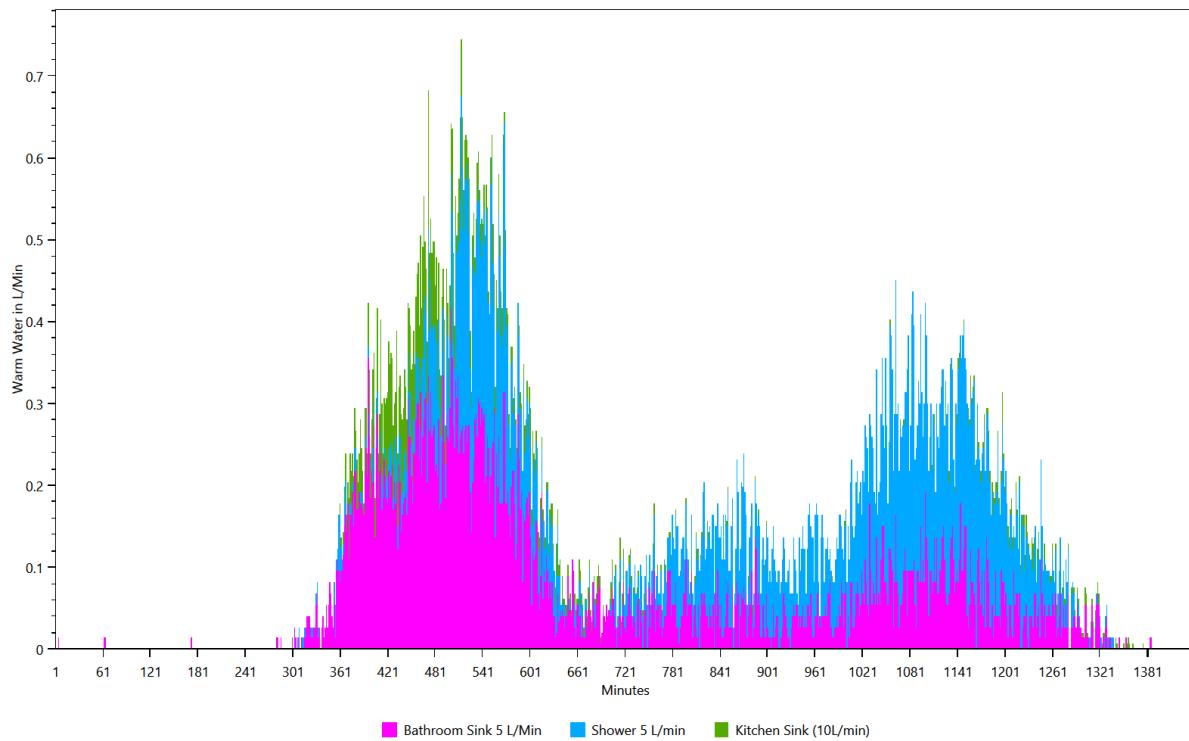
## Cold Water



## Electricity



## Warm Water

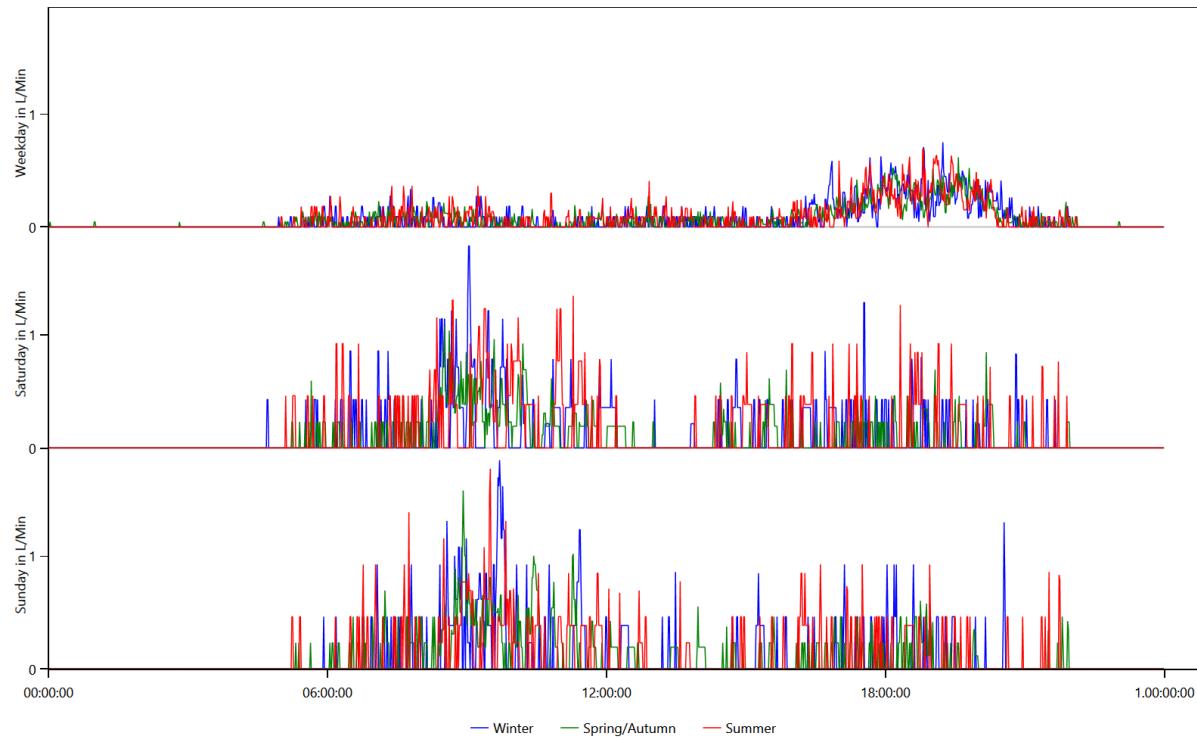


# Energy use per load type during different seasons, split by weekday/saturday/sunday

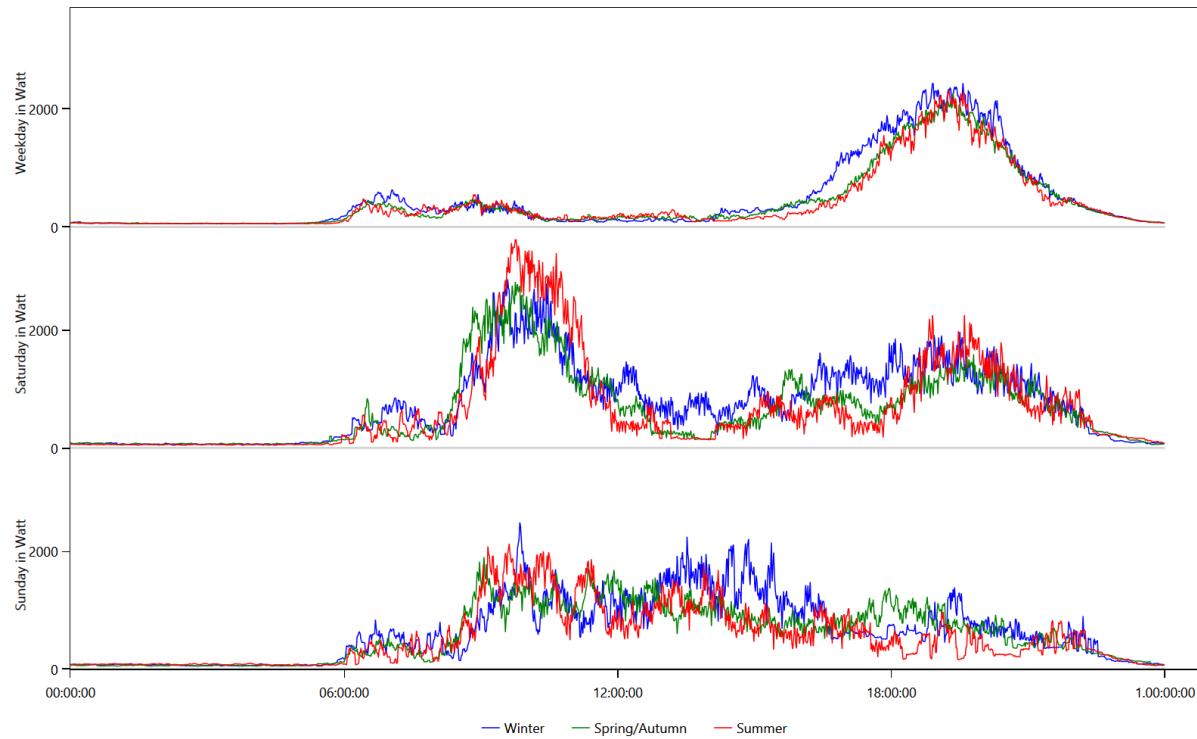
This is made from the files starting with: WeekdayProfiles

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

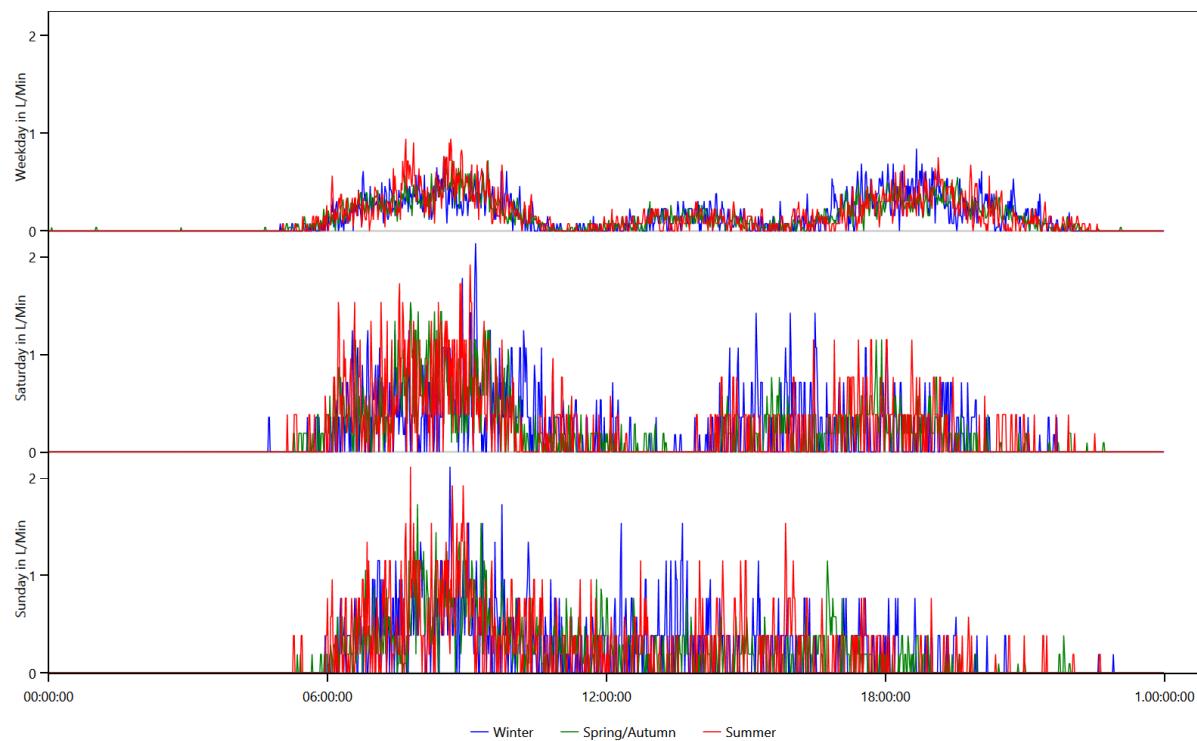
## Cold Water



## Electricity



## Warm Water

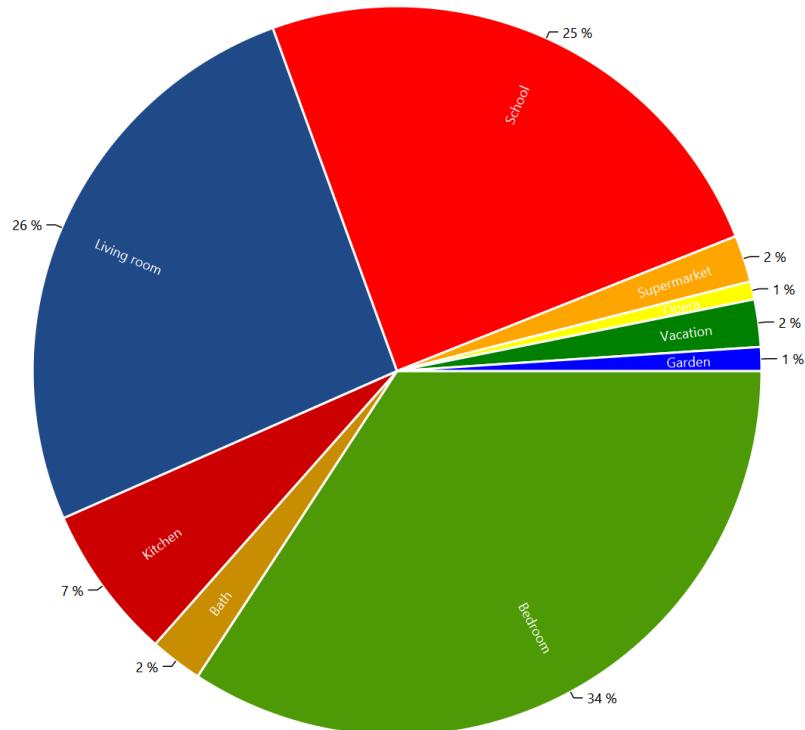


# Location Distribution per Person

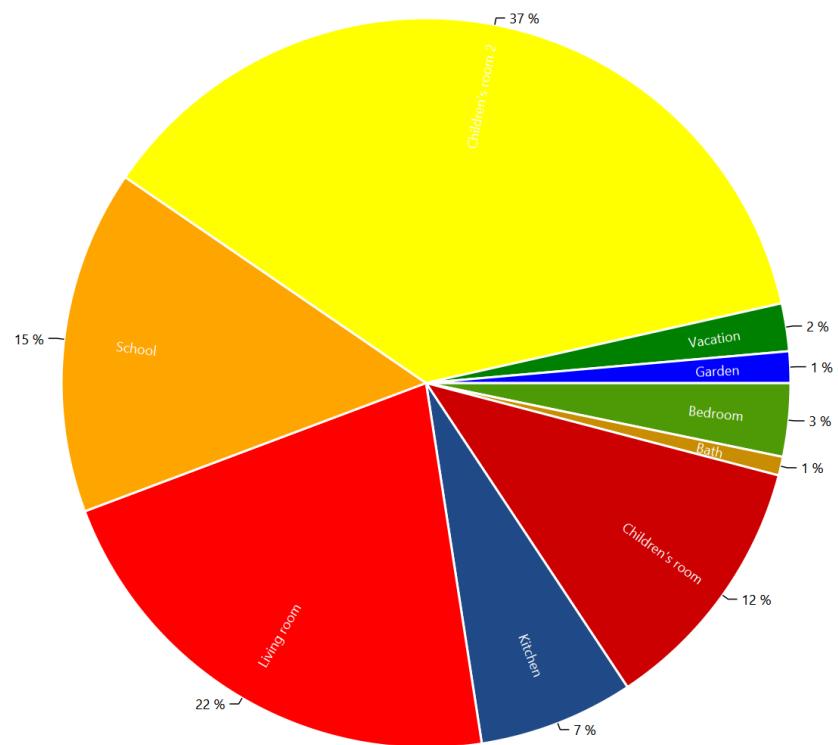
This is made from the files starting with: LocationStatistics

These charts show where the persons spend their time.

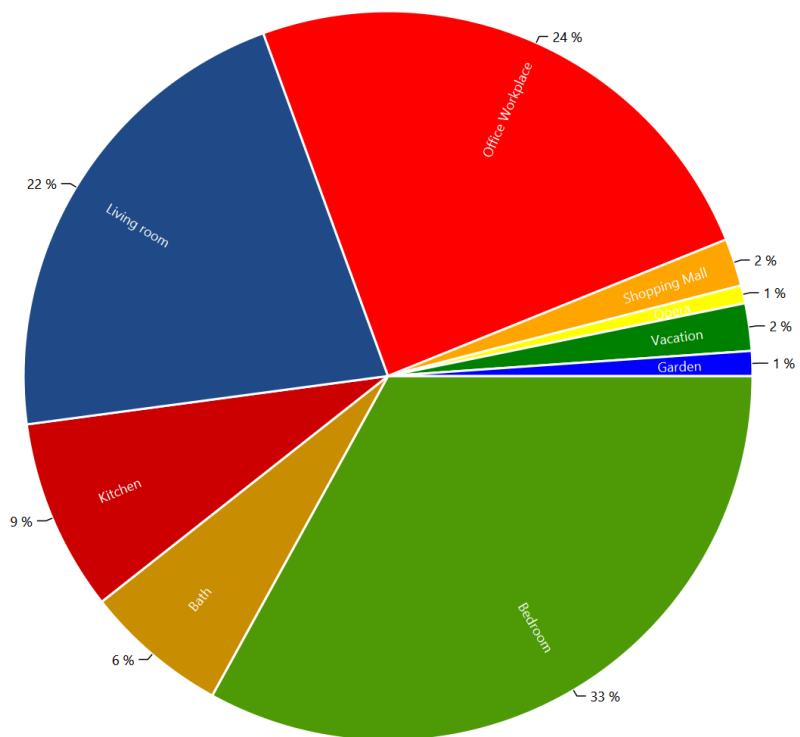
CHR27 Emil (43 Male)



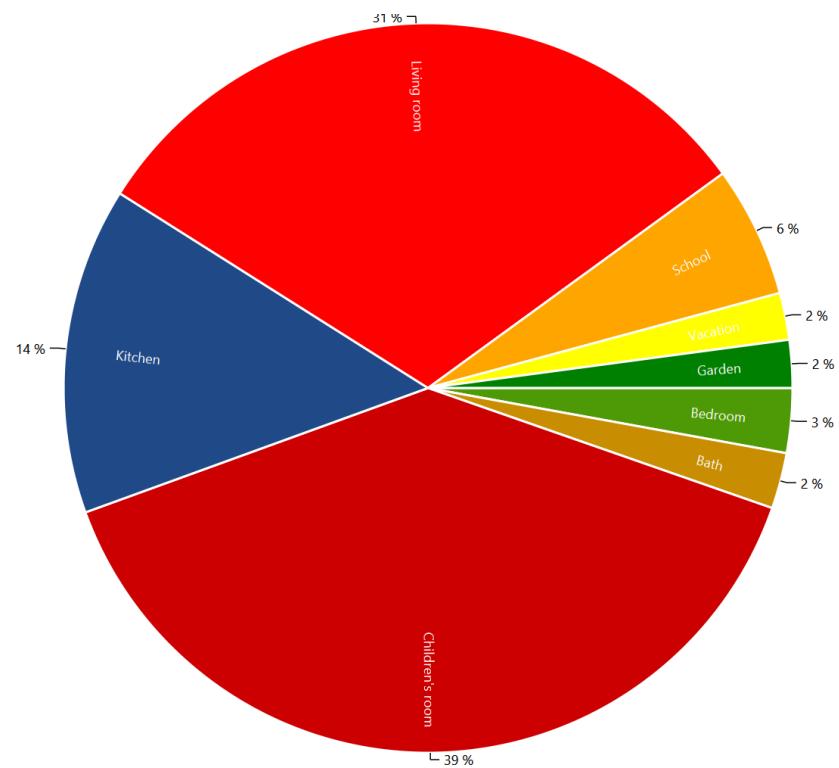
CHR27 Laura (9 Female)



CHR27 Melanie (39 Female)



CHR27 Tobias (13 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

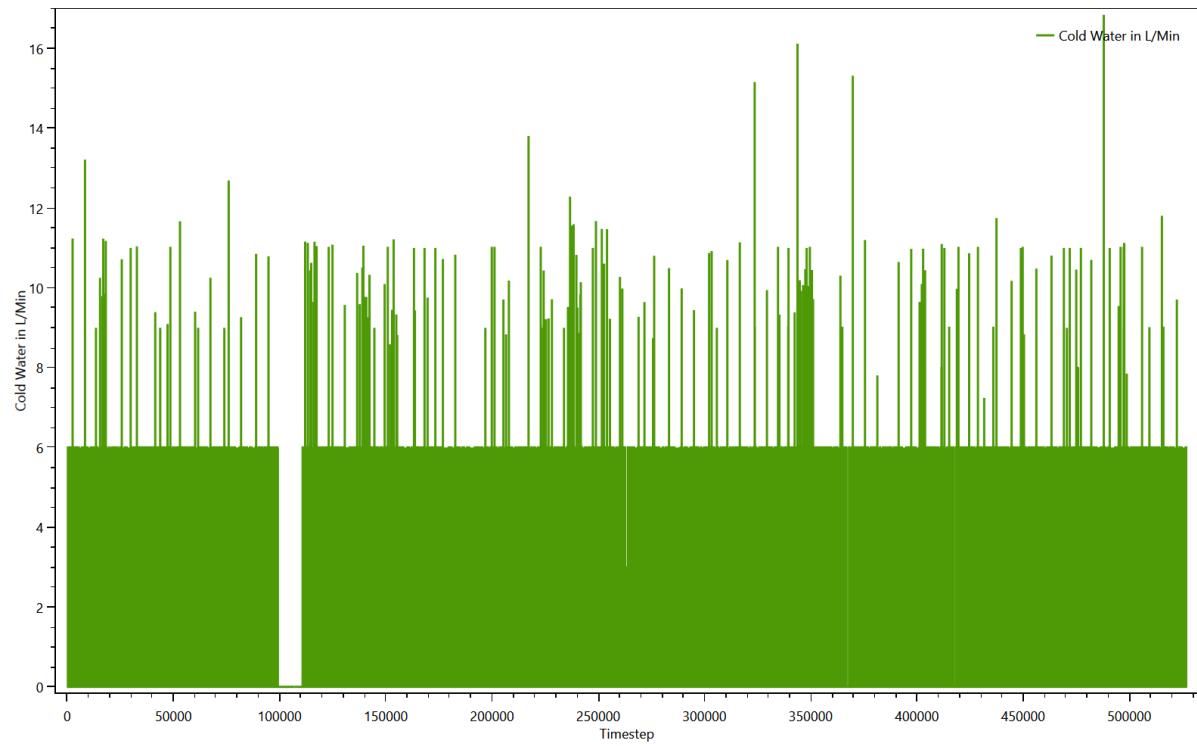
Time step;Calendertime;Person;Selected affordance;Affordance Category;Is Sick  
0;01.01.2016 00:00;CHR27 Emil (43/Male);sleep bed 08 (08 h);sleep;False;  
0;01.01.2016 00:00;CHR27 Laura (9/Female);sleep bed 04 (10 h) Child;sleep;False;  
0;01.01.2016 00:00;CHR27 Melanie (39/Female);sleep bed 02 (08 h);sleep;False;  
0;01.01.2016 00:00;CHR27 Tobias (13/Male);sleep bed 03 (12 h) Child;sleep;False;  
341;01.01.2016 05:41;CHR27 Laura (9/Female);go to the toilet;hygiene;False;  
347;01.01.2016 05:47;CHR27 Laura (9/Female);play with toys (2 h);Offline Entertainment;False;  
371;01.01.2016 06:11;CHR27 Emil (43/Male);eat breakfast (1 h);cooking;False;  
382;01.01.2016 06:22;CHR27 Laura (9/Female);eat a cooked meal (interrupting) (eat breakfast (1 h));cooking;False;  
382;01.01.2016 06:22;CHR27 Tobias (13/Male);eat a cooked meal (interrupting) (eat breakfast (1 h));cooking;False;  
405;01.01.2016 06:45;CHR27 Melanie (39/Female);get ready in the morning (women);hygiene;False;  
427;01.01.2016 07:07;CHR27 Melanie (39/Female);go to the toilet;hygiene;False;  
433;01.01.2016 07:13;CHR27 Melanie (39/Female);use the laptop for Internet, Movie, Music, News (2 h);Active Entertainment (Computer, Internet etc);False;  
436;01.01.2016 07:16;CHR27 Melanie (39/Female);eat a cooked meal (interrupting) (eat breakfast (1 h));cooking;False;  
440;01.01.2016 07:20;CHR27 Emil (43/Male);go to the toilet;hygiene;False;  
440;01.01.2016 07:20;CHR27 Laura (9/Female);play with toys (2 h);Offline Entertainment;False;  
440;01.01.2016 07:20;CHR27 Melanie (39/Female);use the laptop for Internet, Movie, Music, News (2 h);Active Entertainment (Computer, Internet etc);False;  
440;01.01.2016 07:20;CHR27 Tobias (13/Male);sleep bed 03 (12 h) Child;sleep;False;  
445;01.01.2016 07:25;CHR27 Emil (43/Male);play Wii;Passive Entertainment (TV etc.);False;  
457;01.01.2016 07:37;CHR27 Laura (9/Female);go to primary school ;school;False;

# Sum Profiles

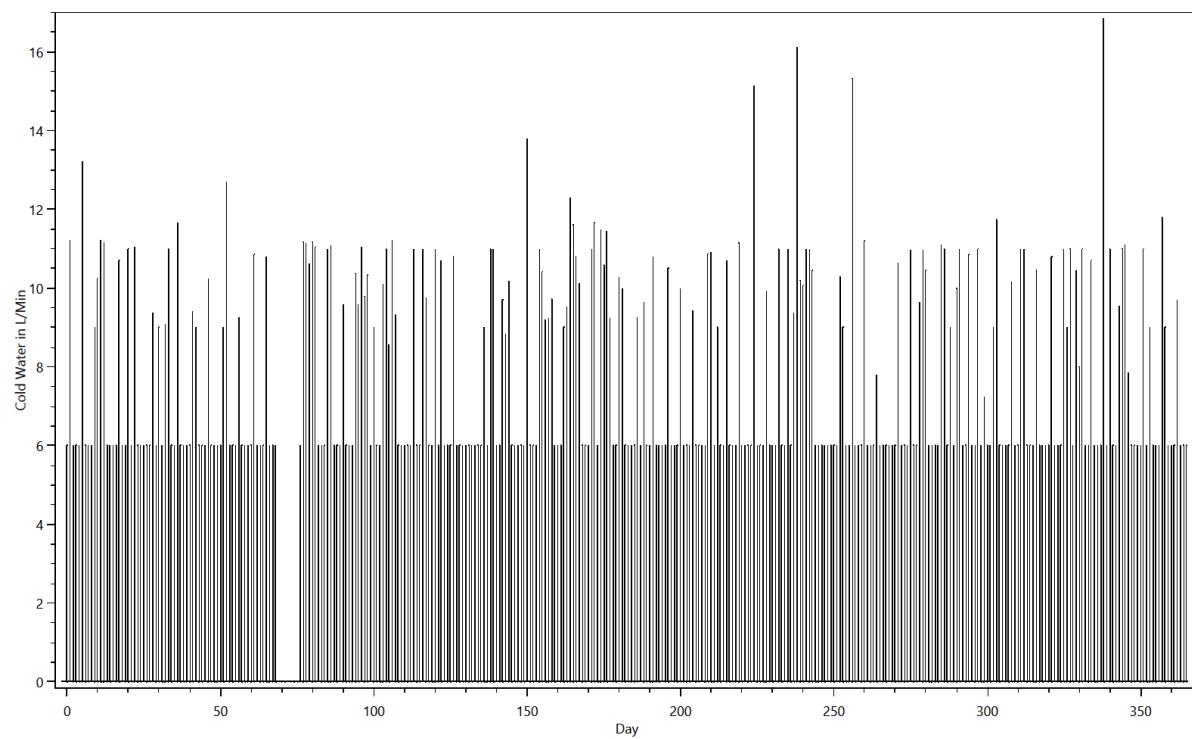
This is made from the files starting with: SumProfiles

This shows the energy use during the simulation.

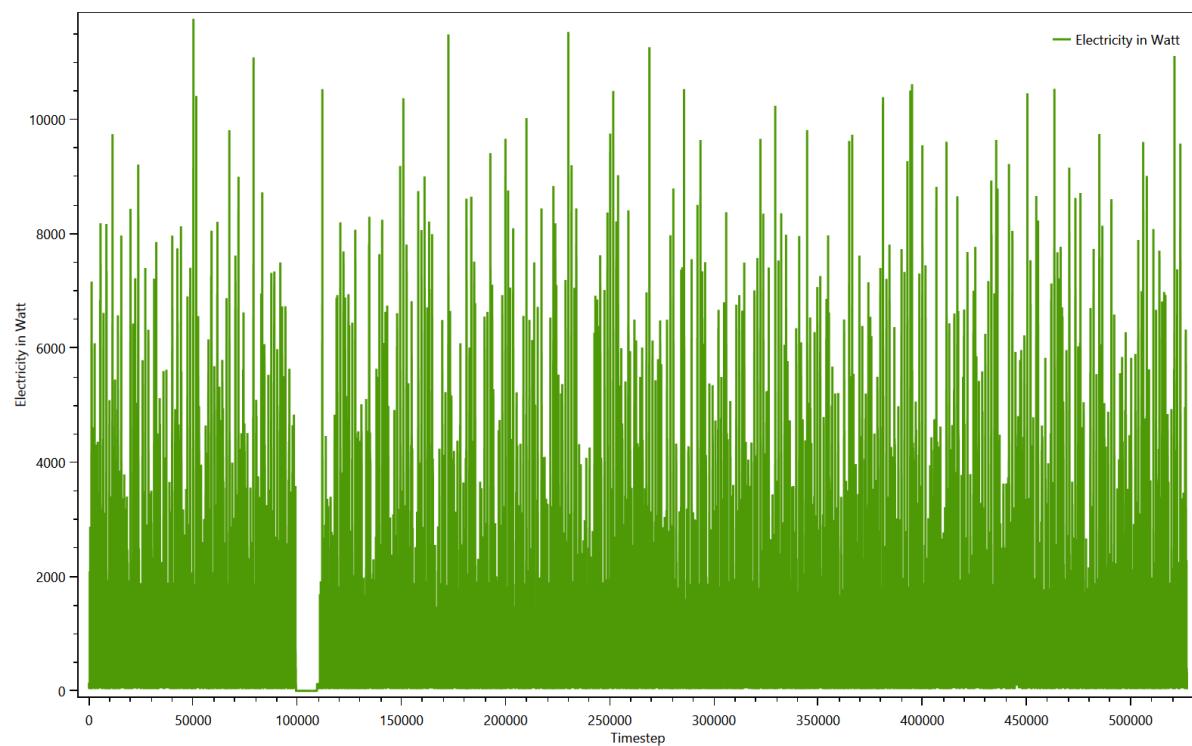
Summed up curve for Cold Water from SumProfiles.Cold Water.png



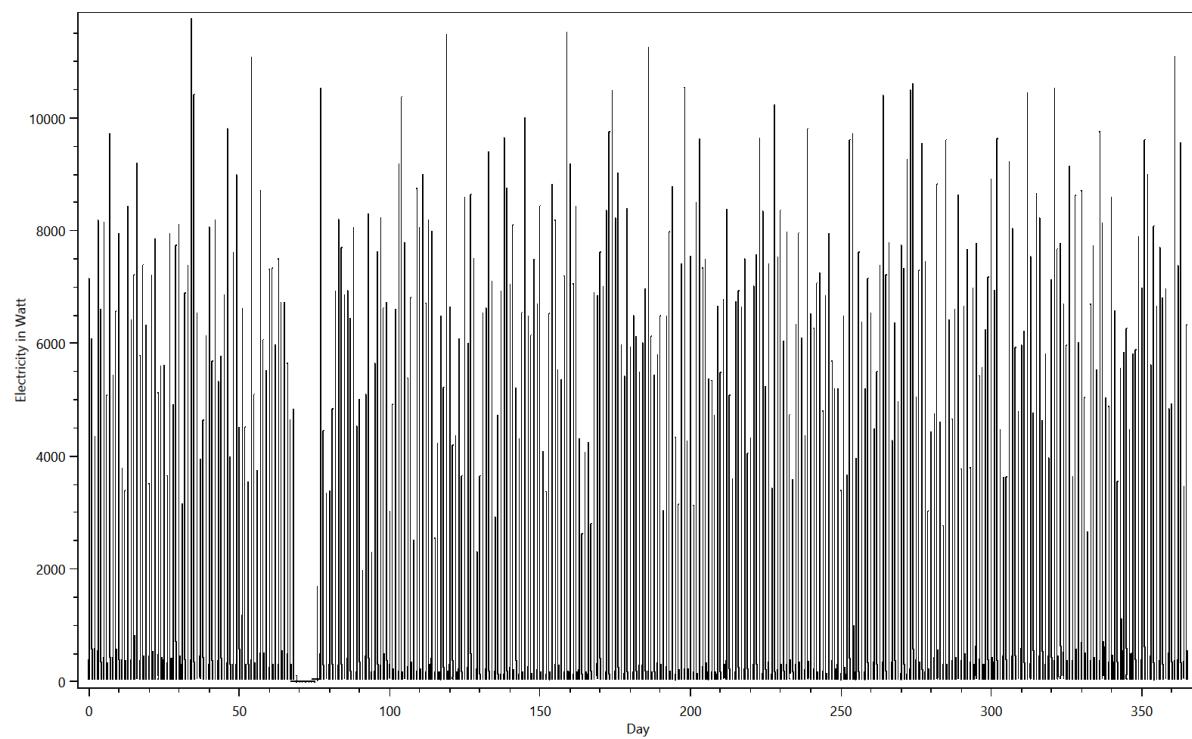
Summed up curve for Cold WaterMinMax from SumProfiles.ColdWaterMinMax..png



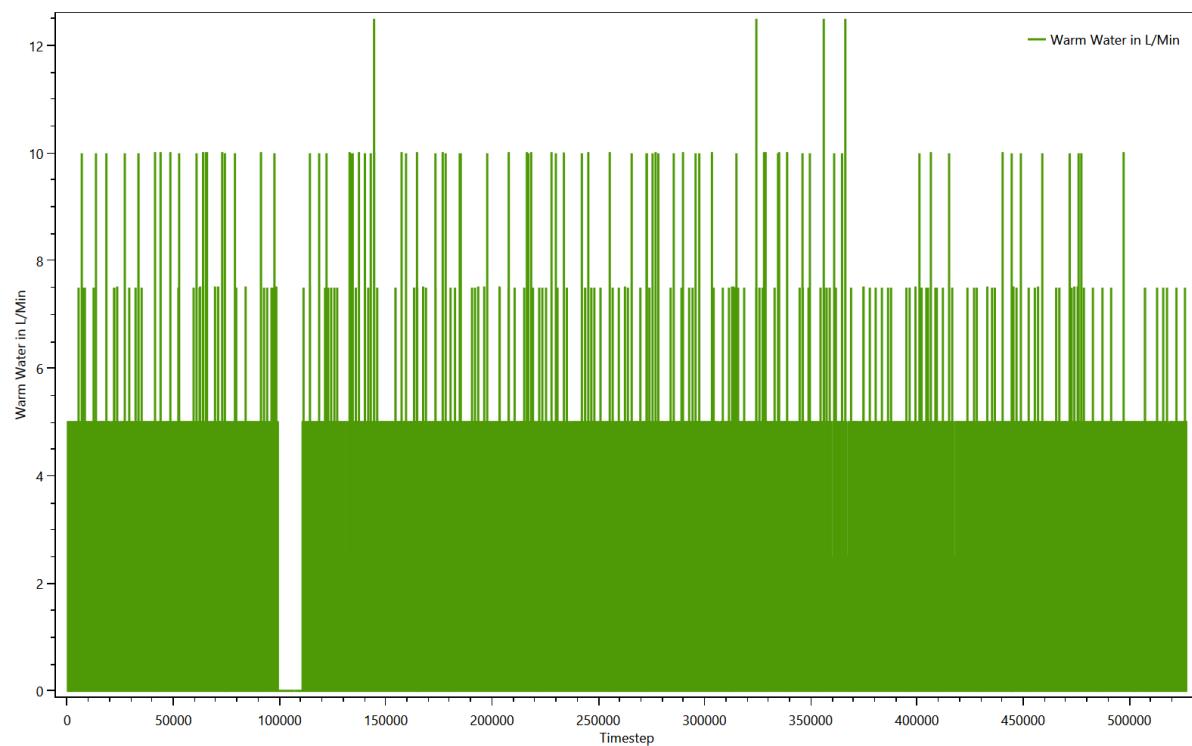
Summed up curve for Electricity from SumProfiles.Electricity.png



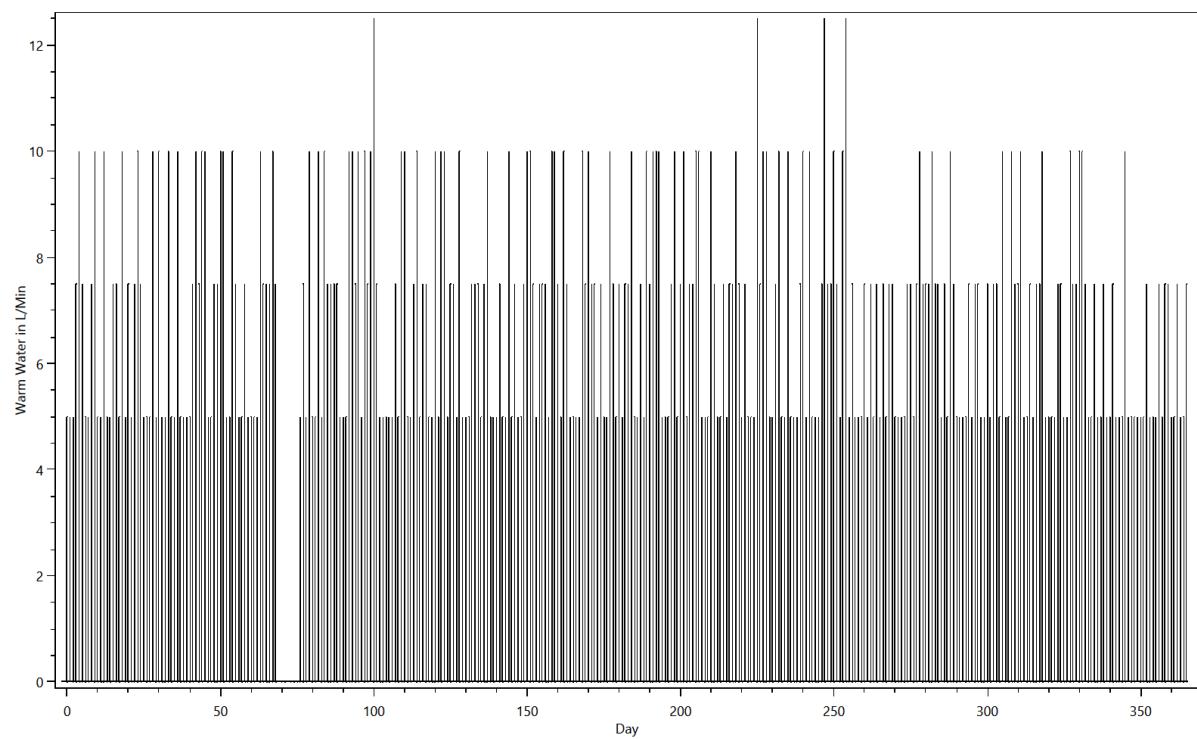
Summed up curve for ElectricityMinMax from  
SumProfiles.ElectricityMinMax..png



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.CHR27 Family both at work, 2 children 0.txt

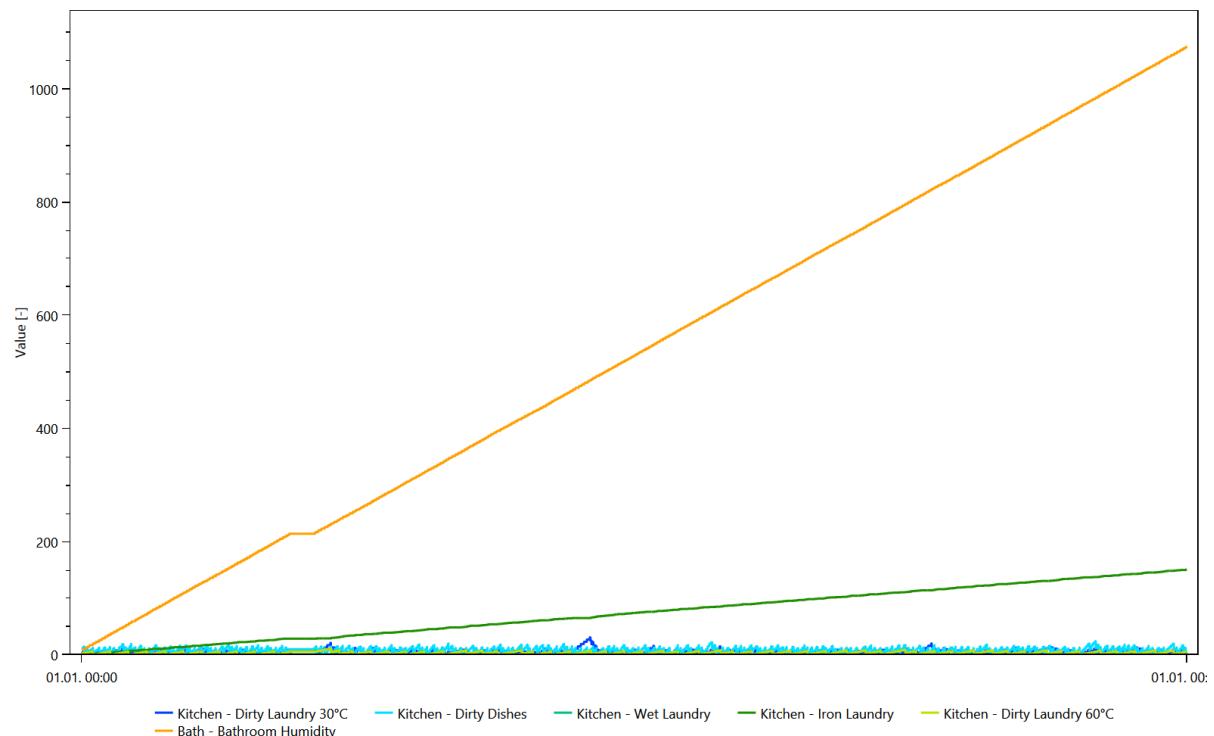
Device;Load Type;Profile;Number of Activations
Bathroom Light (200W);Electricity;Bath - light [Synthetic for Light Device];1077
Bathroom Mirror Light 30W (CFL);Electricity;Bath - light [Synthetic for Light Device];1077
Bathroom Sink 5 L/Min;Warm Water;0 h 01 min 100% [Synthetic];4495
Bathroom Sink 5 L/Min;Warm Water;0 h 01 min 50% [Synthetic];400
Bed 2;None;08 h 0 min 100% [Synthetic];361
Bed 3 (Children);None;12h 0 min 100% [Synthetic];361
Bed 4;None;10 h 0 min 100% [Synthetic];361
Bed 8;None;08 h 0 min 100% [Synthetic];359
Bedroom Light (200W);Electricity;Bedroom - light [Synthetic for Light Device];164
Board Games;None;01 h 0 min 100% [Synthetic];339
Book;None;01 h 0 min 100% [Synthetic];19
CD/DVD Player / Phillips HDR3810/31;Electricity;01 h 30 min 100% [Synthetic];378
CD/DVD Player / Phillips HDR3810/31;Electricity;02 h 0 min 100% [Synthetic];13
CD/DVD Player / Phillips HDR3810/31;Electricity;Standby TV / Receiver 1 h 0 min 3% [Synthetic];8605
Children Room Light (200W);Electricity;Children's room - light [Synthetic for Light Device];281
Cleanser;None;01 h 0 min 100% [Synthetic];84
Coffee Machine / Braun Impression KF 600;Electricity;0 h 10 min 100% [Synthetic];492
Couch;None;01 h 0 min 100% [Synthetic];242
Couch;None;02 h 0 min 100% [Synthetic];930

# 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

