Room:

Id PK:

Name:

Child 1 Bedroom, Child 2 Bedroom, Master Bedroom, Child Bathroom, Master Bathroom, Garage, Laundry Room, Living Room, Kitchen

Room attribute:

Func() update

Device:

Id PK:

Name:

Window, Light Bulb, Lamp, Bath Exhaust fan, HVAC, Refrigerator, Hot Water Heater, Stove, Oven, TV, Thermostat, Bath, Dishwater, Washer, Dryer, Sink, Door, fan

Type:

Electric, Temp, Water

Room\_ID:

Sensor\_Status:

On, Off

Rooms:

Child Bedroom 1: 101

Window: 046

Lamp: 047

Bedroom\_door: 048

Bathroom\_door: 049

Fan: 050

Light: 051

Child Bedroom 2: 102

Window: 001

Lamp: 002

Light: 003

Bedroom\_door: 004

Bathroom\_door: 005

Fan: 006

Child Bathroom: 103

Door: 007

Bath\_exhaust\_fan: 008

Sink: 009

Bath: 010

Light: 011

Living room: 104

Window: 012

Front\_door: 013

TV: 014

Thermostat: 015

Fan: 016

Lamp: 017

Light: 018

HVAC: 019

Hot water heater: 020

Dining Room: 105

Light: 021

Window: 022

Kitchen: 106

Stove: 023

Oven: 024

Dishwasher: 025

Window: 026

Sink: 027

Refrigerator: 028

Microwave: 029

Light: 030

Washroom: 107

Washer: 031

Dryer: 032

Light: 033

Garage: 108

Washroom\_door: 034

Garage\_door: 035

Light: 036

Master Bedroom: 109

Lamp: 037

Light: 038

Fan: 039

Window: 040

Master Bathroom: 110

Door: 041

Bath\_exhaust\_fan: 042

Sink: 043

Bath: 044

Light: 045

Weekly data:

Monday through Friday:

Doors (9) (16 times, exterior door “30 sec”): 0w

Lights (14) (60w): 60w X 6hr X 14 = **5040w**

Bath exhaust fan: 30w X 1hr X 2 = **60w**

HVAC (3500w): 3500w X 10hr(average) = **35000w**

Refrigerator (150w): 150w X 24hr = **3600w**

Hot water heater (4500w, 4min/gal): (((16.25 gal X 2 showers) + (19.5 gal X 2 baths) + (6 gal dishwasher)) X 4min) X 4500w/hr = **23250w**

Stove (3500w): 0.25hr X 3500w = **875w**

Oven (4000w): 0.75hr X 4000w = **3000w**

TV: 4hrs X 636w = **2544w**

Baths: 25gal X 2 baths = **50gal**

Shower: 30gal X 2 showers = **60gal**

Dishwasher: water: 6gal x 1 use = **6gal**

Electric (1800w): 1800w X 0.75hr/use = **1350w**

Washer: water: 20gal X 1 use = **20gal**

Electric: 500w X 0.5hr = **250w**

Dryer (3000w): 3000w X 0.5hr = **1500w**

Saturday and Sunday:

Doors (9) (32 times, extiror door “30 sec”): 0w

Lights (14) (60w): 60w X 8hr X 14 = **6720w**

Bath exhaust Fan: 30w X 1hr X 2 = **60w**

HVAC (3500w): 3500w X 10hr(average) = **35000w**

Refrigerator: 150w X 24hr = **3600w**

Hot water Heater (4500w, 4min/gal): (((16.25 gal X 3 showers) + (19.5 gal X 3 baths)) X 4min)/60min X 4500w/hr = **32175w**

Stove: 3000w X 0.5hr = **1500w**

Oven: 4000w X 1hr = **4000w**

TV: 636w X 8hr = **5088w**

Bath: 30gal X 3 = **90gal**

Shower: 25 gal X 3 = **75gal**

Dishwasher: 4 uses per week

Washer: 4 uses per week

Dryer: 4 uses per week

**Total watts (day M-F): 76469w or 76.469 kWh**

**Total watts (M-F): 382345w or 382.349 kWh**

**Total watts (day S-S): 88143w**

**Total watts(S-S): 176286w**

**Total Electric Cost (day): $9.17**

**Total Electric cost (M-F): $45.85**

**Total Electric cost (S-S): $21.15**

**Total weekly cost: $67**

**Total gallons (day M-F): 136gal**

**Total gallons (M-F): 680gal**

**Total gallons (day S-S): 165**

**Total gallons (S-S): 330gal**

**Water Cost: $0.45**

**Total Water cost (M-F): $2.25**

**Total Water cost (S-S): $1.11**

**Total weekly cost: $3.36**