

**FINAL REPORT**  
**Energy Consumption Audit**

**For**

Demo - Industry A

Montréal (décalé)

QC, Canada

PREPARED WITH



June 22, 2021

Report covering 2012-12-01 to 2017-11-30

**TABLE OF CONTENTS**

<b>Introduction</b>	<b>2</b>
<b>Methodology</b>	<b>2</b>
<b>Summary of the results</b>	<b>4</b>
<b>Electricity</b>	
Distribution of the electricity consumption	5
Mathematical model of the electricity consumption	9
<b>Appendices</b>	
Appendix A Statements of electrical consumption	27
Appendix B.1 Site's Statutory Holidays Listing	29
Appendix B.2 Site's Events Listing	30
Appendix C Site's Working Periods Listing	31
Appendix D Site's Operations and Settings Listing	32

## Introduction

Bull's Eye is energy consumption analysis software that can be used for energy savings projects, validation of such projects or fiscal purpose in the industrial sector, to name a few.

It is based on the methodology of a consulting firm specialized in energy analysis with over 30 years of expertise. The software allows the modeling of the energy consumption and the use of the other management tools that firm developed. These tools can serve for an efficient and precise management of the energy.

The present report will consist of the energy analysis including the modeling of the electrical consumption of the Demo - Industry A located at Montréal (décagé). For fiscal purpose, these models will enable the calculation, each month, of the non-production energy consumption by taking into account a number of variables including the production level.

## Methodology

The non-production energy loads are composed of the lighting, ventilation, heating, cooling, and a certain number of base building loads.

In order to complete the mathematical models and classify the energy loads production or non-production, the following steps needed to be completed:

- Data collection
- Analyse the local atmospheric conditions
- Analyse the energy consumption of the site
- Meeting with the personnel
- Configure Bull's Eye according to the site's reality
- Model the electrical consumption of the site
- Model the thermal energy consumption of the site
- Classify and distribute the energy loads
- Prepare the final report

The Bull's Eye software can only guarantee the accuracy of the calculations, the responsibility of the accuracy of the final results lies with the party that performed the steps above-mentioned, from data collection to the configuration of Bull's Eye.

## Summary of the results

In order to complete the energy consumption study of Demo - Industry A, an analysis of the building energy consumption, taking into account the dimensions of the building and the region climate condition, was performed.

Finally, the different energy loads are separated into production and non-production loads. The method used to classify the consumption of the different energy equipment is explained in detail in the "Distribution of the consumption" section. The method used for each energy type is described in the corresponding section.

The model and the energy analysis of the different energy sources enable Bull's Eye to establish the non production energy consumption rate at:

Energy	Non-Production rate						
	2012	2013	2014	2015	2016	2017	
							(2161 Days)
Electrical	N/A	N/A	N/A	N/A	N/A	N/A	

### Distribution of the electrical consumption

All of the lighting loads are considered non-production in this study.

All the loads from the offices have been classified as non-production in this study.

All the electrical consumption used to heat or cool the building(s) was calculated by the model of the site consumption. The loads not used for the production have been classified as non-production in this study.

All of the preceeding calculated values were inputed into the work sheets that were used to determine the total non-production consumption rate.

The total of all the non-production loads result in a non-production consumption rate of:

Energy	Non-Production rate						
	2012	2013	2014	2015	2016	2017	
							(2161 Days)
Electrical	N/A	N/A	N/A	N/A	N/A	N/A	

On the following pages, a table, which resume the non-production consumption for each type of equipment by billing periods, can be found.

For the complete list of the non-production equipment loads please refer to Appendix A.

Electricity consumption rate non-production (Page 1 of 3)

Demo - Industry A

Billing Month	Total adjusted Production Units	Total Electrical Consumption kWh	Inventory list loads Consumption Non-Production kWh	Heating Consumption Non-Production kWh	Cooling Consumption Non-Production kWh	Cooling Fixed Load Consumption Non-Production kWh	Refrigeration Consumption Non-Production kWh	Total Electrical Consumption Non-Production kWh	Rate of Electrical Consumption Non-Production %
jan	6 250	1 492 800	612 288	33 598	0	415 543	0	1 061 429	N/A
feb	7 349	1 291 200	572 544	24 126	0	388 734	0	985 403	N/A
mar	7 155	1 464 000	633 888	13 528	0	476 330	0	1 123 746	N/A
apr	5 911	1 435 200	613 440	3 765	0	460 964	0	1 078 169	N/A
may	5 585	1 536 000	619 488	0	721	519 813	0	1 140 022	N/A
jun	6 387	1 411 200	613 440	0	9 895	432 364	0	1 055 698	N/A
jul	7 408	1 497 600	633 888	0	5 729	446 776	0	1 086 392	N/A
aug	9 207	1 507 200	619 488	2 730	0	519 813	0	1 142 031	N/A
sep	10 448	1 502 400	613 440	15 867	0	402 138	0	1 031 446	N/A
oct	8 011	1 497 600	633 888	24 638	0	415 543	0	1 074 069	N/A
nov	6 048	1 248 000	577 440	39 021	0	402 138	0	1 018 600	N/A
dec	10 146	1 421 867	633 888	39 935	0	415 543	0	1 089 366	N/A
<b>Total</b>	<b>89 905</b>	<b>17 305 066</b>	<b>7 377 120</b>	<b>197 208</b>	<b>16 344</b>	<b>5 295 698</b>	<b>0</b>	<b>12 886 371</b>	
<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>
jan	6 250	1 492 800	612 288	33 598	0	415 543	0	1 061 429	N/A
feb	7 349	1 291 200	572 544	24 126	0	375 329	0	971 999	N/A
mar	7 155	1 464 000	633 888	13 528	0	476 330	0	1 123 746	N/A
apr	5 911	1 435 200	613 440	3 765	0	460 964	0	1 078 169	N/A
may	5 585	1 536 000	619 488	0	721	519 813	0	1 140 022	N/A
jun	6 387	1 411 200	613 440	0	9 895	432 364	0	1 055 698	N/A
jul	7 408	1 497 600	633 888	0	5 729	446 776	0	1 086 392	N/A
aug	9 207	1 507 200	619 488	2 730	0	519 813	0	1 142 031	N/A
sep	10 448	1 502 400	613 440	15 867	0	402 138	0	1 031 446	N/A
oct	8 011	1 497 600	633 888	24 638	0	415 543	0	1 074 069	N/A
nov	6 048	1 248 000	577 440	39 021	0	402 138	0	1 018 600	N/A
dec	10 146	1 421 867	633 888	39 935	0	415 543	0	1 089 366	N/A
<b>Total</b>	<b>89 905</b>	<b>17 305 066</b>	<b>7 377 120</b>	<b>197 208</b>	<b>16 344</b>	<b>5 282 293</b>	<b>0</b>	<b>12 872 966</b>	

Electricity consumption rate non-production (Page 2 of 3)

Demo - Industry A

Billing Month	Total adjusted Production	Total Electrical Consumption	Inventory list loads Consumption Non-Production	Heating Consumption Non-Production	Cooling Consumption Non-Production	Cooling Fixed Load Consumption Non-Production	Refrigeration Consumption Non-Production	Total Electrical Consumption Non-Production	Rate of Electrical Consumption Non-Production
	Units	kWh	kWh	kWh	kWh	kWh	kWh	kWh	%
2014	2014	2014	2014	2014	2014	2014	2014	2014	2014
jan	6 250	1 492 800	612 288	33 598	0	415 543	0	1 061 429	N/A
feb	7 349	1 291 200	572 544	24 126	0	375 329	0	971 999	N/A
mar	7 155	1 464 000	633 888	13 528	0	476 330	0	1 123 746	N/A
apr	5 911	1 435 200	613 440	3 765	0	460 964	0	1 078 169	N/A
may	5 585	1 536 000	619 488	0	721	519 813	0	1 140 022	N/A
jun	6 387	1 411 200	613 440	0	9 895	432 364	0	1 055 698	N/A
jul	7 408	1 497 600	633 888	0	5 729	446 776	0	1 086 392	N/A
aug	9 207	1 507 200	619 488	2 730	0	519 813	0	1 142 031	N/A
sep	10 448	1 502 400	613 440	15 867	0	402 138	0	1 031 446	N/A
oct	8 011	1 497 600	633 888	24 638	0	415 543	0	1 074 069	N/A
nov	6 048	1 248 000	577 440	39 021	0	402 138	0	1 018 600	N/A
dec	10 146	1 421 867	633 888	39 935	0	415 543	0	1 089 366	N/A
<b>Total</b>	<b>89 905</b>	<b>17 305 066</b>	<b>7 377 120</b>	<b>197 208</b>	<b>16 344</b>	<b>5 282 293</b>	<b>0</b>	<b>12 872 966</b>	
<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>
jan	6 250	1 492 800	612 288	41 255	0	415 543	0	1 069 086	N/A
feb	7 349	1 291 200	572 544	36 598	0	375 329	0	984 471	N/A
mar	7 155	1 464 000	633 888	25 300	0	415 543	0	1 074 731	N/A
apr	5 911	1 435 200	613 440	11 321	0	460 964	0	1 085 725	N/A
may	5 585	1 536 000	619 488	2 276	0	519 813	0	1 141 577	N/A
jun	6 387	1 411 200	613 440	771	0	503 045	0	1 117 256	N/A
jul	7 408	1 497 600	633 888	0	7 068	446 776	0	1 087 732	N/A
aug	9 207	1 507 200	619 488	0	6 277	446 776	0	1 072 541	N/A
sep	10 448	1 502 400	613 440	0	1 563	503 045	0	1 118 048	N/A
oct	8 011	1 497 600	633 888	16 459	0	415 543	0	1 065 890	N/A
nov	6 048	1 248 000	577 440	21 871	0	402 138	0	1 001 449	N/A
dec	10 146	1 421 867	633 888	26 386	0	415 543	0	1 075 816	N/A
<b>Total</b>	<b>89 905</b>	<b>17 305 066</b>	<b>7 377 120</b>	<b>182 235</b>	<b>14 909</b>	<b>5 320 058</b>	<b>0</b>	<b>12 894 321</b>	

Electricity consumption rate non-production (Page 3 of 3)

Demo - Industry A

Billing Month	Total adjusted Production		Total Electrical Consumption		Inventory list loads Consumption Non-Production		Heating Consumption Non-Production		Cooling Consumption Non-Production		Cooling Fixed Load Consumption Non-Production		Refrigeration Consumption Non-Production		Total Electrical Consumption Non-Production		Rate of Electrical Consumption Non-Production	
	Units	2016	kWh	2016	kWh	2016	kWh	2016	kWh	2016	kWh	2016	kWh	2016	kWh	2016	%	2016
jan	6 250	1 492 800	612 288	39 882	0	415 543	0	0	0	0	0	1 067 713	N/A					
feb	7 349	1 291 200	572 544	37 052	0	388 734	0	0	0	0	0	998 329	N/A					
mar	7 155	1 464 000	633 888	29 295	0	415 543	0	0	0	0	0	1 078 726	N/A					
apr	5 911	1 435 200	613 440	22 056	0	402 138	0	0	0	0	0	1 037 634	N/A					
may	5 585	1 536 000	619 488	5 391	0	476 330	0	0	0	0	0	1 101 209	N/A					
jun	6 387	1 411 200	613 440	0	2 431	503 045	0	0	0	0	0	1 118 915	N/A					
jul	7 408	1 497 600	633 888	0	7 885	446 776	0	0	0	0	0	1 088 549	N/A					
aug	9 207	1 507 200	619 488	0	9 340	446 776	0	0	0	0	0	1 075 603	N/A					
sep	10 448	1 502 400	613 440	845	0	503 045	0	0	0	0	0	1 117 330	N/A					
oct	8 011	1 497 600	633 888	13 539	0	476 330	0	0	0	0	0	1 123 756	N/A					
nov	6 048	1 248 000	577 440	22 293	0	402 138	0	0	0	0	0	1 001 872	N/A					
dec	10 146	1 421 867	633 888	35 462	0	415 543	0	0	0	0	0	1 084 893	N/A					
<b>Total</b>	<b>89 905</b>	<b>17 305 066</b>	<b>7 377 120</b>	<b>205 814</b>	<b>19 655</b>	<b>5 291 940</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12 894 530</b>						
<b>2017</b>																		
jan	6 250	1 492 800	612 288	37 205	0	415 543	0	0	0	0	0	1 065 036	N/A					
feb	7 349	1 291 200	572 544	32 458	0	375 329	0	0	0	0	0	980 331	N/A					
mar	7 155	1 464 000	633 888	36 793	0	415 543	0	0	0	0	0	1 086 224	N/A					
apr	5 911	1 435 200	613 440	16 073	0	402 138	0	0	0	0	0	1 031 651	N/A					
may	5 585	1 536 000	619 488	7 957	0	476 330	0	0	0	0	0	1 103 775	N/A					
jun	6 387	1 411 200	613 440	0	1 308	503 045	0	0	0	0	0	1 117 792	N/A					
jul	7 408	1 497 600	633 888	0	5 550	446 776	0	0	0	0	0	1 086 214	N/A					
aug	9 207	1 507 200	619 488	0	3 726	519 813	0	0	0	0	0	1 143 026	N/A					
sep	10 448	1 502 400	613 440	0	804	503 045	0	0	0	0	0	1 117 288	N/A					
oct	8 011	1 497 600	633 888	7 709	0	476 330	0	0	0	0	0	1 117 927	N/A					
nov	6 048	1 248 000	577 440	25 937	0	402 138	0	0	0	0	0	1 005 515	N/A					
<b>Total</b>	<b>79 759</b>	<b>15 883 200</b>	<b>6 743 232</b>	<b>164 132</b>	<b>11 387</b>	<b>4 936 029</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11 854 780</b>						



## Mathematical model of the electrical consumption

The mathematical model has been completed based on the results of the energy analysis and the separation of the different types of electrical loads. The components of the model are the following:

1. The base load (lighting, ventilation, others)
2. The heating and cooling loads (in relation to degree-days)
3. The loads related to production
4. The mathematical parameter

The mathematical model enables the calculation of the electrical consumption of the site for each month for which the production level is known. As the model is usually very stable from one year to the next, only the last twelve months are presented here in an effort to be concise. Moreover, the precision of the model is superior to 0,10% over a period of 12 consecutive months. Thus the mathematical model becomes a powerful tool that will help in maintaining an efficient energy management.

### Site Model

**kWh = Base load + Heating and Cooling and Refrigeration and Freezing + Production**

where: kWh is the consumption for each billing period

#### Base load consumption:

**kWh = on tension hours x L.B1 + production hours x L.B2**

where **Load B1\*** is

0	from	2016-12-01	to	2017-11-30
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where **Load B2\*** is

852	from	2016-12-01	to	2016-12-31
823	from	2017-01-01	to	2017-01-31
852	from	2017-02-01	to	2017-04-30
833	from	2017-05-01	to	2017-05-31
852	from	2017-06-01	to	2017-07-31
833	from	2017-08-01	to	2017-08-31
852	from	2017-09-01	to	2017-10-31

802 from 2017-11-01 to 2017-11-30

\* These loads are obtained through the average of the effective power of all the equipment.

### **Heating, Cooling, Refrigeration and Freezing consumption:**

#### **Heating**

**kWh = A kWh/D-D x Heating Degree-days x Meteorological effect**

where Heating degree-days are starting at 18,0 °C

and A =

53	from	2016-12-01	to	2017-05-31
0	from	2017-06-01	to	2017-09-30
53	from	2017-10-01	to	2017-11-30

Meteorological effect combines the effect of the sun and the wind under the form of a coefficient applied on the degree-days.

#### **Cooling**

**kWh = B kWh/D-D x Cooling Degree-days x Meteorological effect**

where Cooling degree-days are starting at 18,0 °C

and B =

0	from	2016-12-01	to	2017-05-31
64	from	2017-06-01	to	2017-09-30
0	from	2017-10-01	to	2017-11-30

Meteorological effect combines the effect of the sun and the wind under the form of a coefficient applied on the degree-days.

#### **Refrigeration**

**kWh = C kWh/D-D x Cooling Degree-days<sub>1</sub> x Meteorological effect**

where Cooling degree-days<sub>1</sub> are starting at 4,0 °C

and C =

0	from	2016-12-01	to	2017-11-30
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**Freezing**

**kWh = D kWh/D-D x Cooling Degree-days<sub>2</sub> x Meteorological effect**

where Cooling degree-days<sub>2</sub> are starting at -18,0 °C

and D =

0 from 2016-12-01 to 2017-11-30

**Production Consumption:**

For production of 0 to 10 448 units per production period

**kWh = 399 kWh + (0 kWh/unit x Production)**

**Mathematical parameter:**

To take into account variation between the model and the real consumption, resulting from human behavior (leaving a door open, tardiness of the maintenance schedule, etc.), unreported events (shutdowns, failure, etc.) and temporary projects, a mathematical parameter can be used to stabilize it.

The following pages show the table of results of the electrical consumption modeling of Demo - Industry A. The difference between the mathematical model and the real consumption of the site is never over 0,10% for a whole year, as reported in the aforementioned table. Furthermore, the difference for a billing period never exceeds 2,50%.

Mathematical model for electrical consumption (Section A - Page 1 of 3)

Demo - Industry A

Billing Month	End Date of billing period	Electrical billing period	Amount of electrical bill without taxes	Maximum Demand		Billed Demand	Maximum Real Demand		Power Factor	Off peak						
				KVA	KVA		KW	KW		Billed Demand	Maximum Real Demand	Power Factor	Maximum Demand	Billed Demand	Maximum Real Demand	Power Factor
		Days	\$	2012	2012	2012	2012	2012	%	KVA	KW	KW	2012	2012	2012	2012
2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012
jan	2012-01-31	31	84 782,36	2 990	2 746	2 990	2 746	91,8	0	0	0	0	0	0	0	0
feb	2012-02-29	29	72 808,19	2 827	2 573	2 827	2 573	91,0	0	0	0	0	0	0	0	0
mar	2012-03-31	31	83 455,15	2 938	2 654	2 938	2 654	90,4	0	0	0	0	0	0	0	0
apr	2012-04-30	30	83 678,54	3 149	2 726	3 149	2 726	86,6	0	0	0	0	0	0	0	0
may	2012-05-31	31	88 982,09	3 221	2 866	3 221	2 866	89,0	0	0	0	0	0	0	0	0
jun	2012-06-30	30	82 592,74	3 120	2 765	3 120	2 765	88,6	0	0	0	0	0	0	0	0
jul	2012-07-31	31	87 040,46	3 158	2 794	3 158	2 794	88,4	0	0	0	0	0	0	0	0
aug	2012-08-31	31	86 683,68	3 101	2 760	3 101	2 760	89,0	0	0	0	0	0	0	0	0
sep	2012-09-30	30	85 555,18	3 125	2 808	3 125	2 808	89,9	0	0	0	0	0	0	0	0
oct	2012-10-31	31	84 268,33	2 890	2 626	2 890	2 626	90,9	0	0	0	0	0	0	0	0
nov	2012-11-30	30	76 259,19	2 981	2 717	2 981	2 717	91,1	0	0	0	0	0	0	0	0
dec	2012-12-31	31	71 388,70	2 957	2 693	2 957	2 693	91,1	0	0	0	0	0	0	0	0
<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>36 457</b>	<b>32 728</b>	<b>36 457</b>	<b>32 728</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>
jan	2013-01-31	31	84 782,36	2 990	2 746	2 990	2 746	91,8	0	0	0	0	0	0	0	0
feb	2013-02-28	28	72 808,19	2 827	2 573	2 827	2 573	91,0	0	0	0	0	0	0	0	0
mar	2013-03-31	31	83 455,15	2 938	2 654	2 938	2 654	90,4	0	0	0	0	0	0	0	0
apr	2013-04-30	30	83 678,54	3 149	2 726	3 149	2 726	86,6	0	0	0	0	0	0	0	0
may	2013-05-31	31	88 982,09	3 221	2 866	3 221	2 866	89,0	0	0	0	0	0	0	0	0
jun	2013-06-30	30	82 592,74	3 120	2 765	3 120	2 765	88,6	0	0	0	0	0	0	0	0
jul	2013-07-31	31	87 040,46	3 158	2 794	3 158	2 794	88,4	0	0	0	0	0	0	0	0
aug	2013-08-31	31	86 683,68	3 101	2 760	3 101	2 760	89,0	0	0	0	0	0	0	0	0
sep	2013-09-30	30	85 555,18	3 125	2 808	3 125	2 808	89,9	0	0	0	0	0	0	0	0
oct	2013-10-31	31	84 268,33	2 890	2 626	2 890	2 626	90,9	0	0	0	0	0	0	0	0
nov	2013-11-30	30	76 259,19	2 981	2 717	2 981	2 717	91,1	0	0	0	0	0	0	0	0
dec	2013-12-31	31	71 388,70	2 957	2 693	2 957	2 693	91,1	0	0	0	0	0	0	0	0
<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>36 457</b>	<b>32 728</b>	<b>36 457</b>	<b>32 728</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>

Mathematical model for electrical consumption (Section A - Page 2 of 3)

Demo - Industry A

Billing Month	End Date of billing period	Electrical billing period		Amount of electrical bill without taxes	Maximum Demand		Billed Demand	Maximum Real Demand		Power Factor	Off peak				
		Days	2014		KVA	2014		KW	2014		KVA	2014	Billed Demand	Maximum Real Demand	Power Factor
2014	2014			2014	2014	2014	2014	2014	2014	2014	2014	2014	2014	2014	2014
jan	2014-01-31	31	84 782,36	2 990	2 746	2 990	2 746	91,8							
feb	2014-02-28	28	72 808,19	2 827	2 573	2 827	2 573	91,0							
mar	2014-03-31	31	83 455,15	2 938	2 654	2 938	2 654	90,4							
apr	2014-04-30	30	83 678,54	3 149	2 726	3 149	2 726	86,6							
may	2014-05-31	31	88 982,09	3 221	2 866	3 221	2 866	89,0							
jun	2014-06-30	30	82 592,74	3 120	2 765	3 120	2 765	88,6							
jul	2014-07-31	31	87 040,46	3 158	2 794	3 158	2 794	88,4							
aug	2014-08-31	31	86 683,68	3 101	2 760	3 101	2 760	89,0							
sep	2014-09-30	30	85 555,18	3 125	2 808	3 125	2 808	89,9							
oct	2014-10-31	31	84 268,33	2 890	2 626	2 890	2 626	90,9							
nov	2014-11-30	30	76 259,19	2 981	2 717	2 981	2 717	91,1							
dec	2014-12-31	31	71 388,70	2 957	2 693	2 957	2 693	91,1							
<b>2015</b>	<b>2015</b>	<b>365</b>	<b>987 494,63</b>	<b>36 457</b>	<b>0</b>	<b>36 457</b>	<b>0</b>	<b>32 728</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2015</b>
jan	2015-01-31	31	84 782,36	2 990	2 746	2 990	2 746	91,8							
feb	2015-02-28	28	72 808,19	2 827	2 573	2 827	2 573	91,0							
mar	2015-03-31	31	83 455,15	2 938	2 654	2 938	2 654	90,4							
apr	2015-04-30	30	83 678,54	3 149	2 726	3 149	2 726	86,6							
may	2015-05-31	31	88 982,09	3 221	2 866	3 221	2 866	89,0							
jun	2015-06-30	30	82 592,74	3 120	2 765	3 120	2 765	88,6							
jul	2015-07-31	31	87 040,46	3 158	2 794	3 158	2 794	88,4							
aug	2015-08-31	31	86 683,68	3 101	2 760	3 101	2 760	89,0							
sep	2015-09-30	30	85 555,18	3 125	2 808	3 125	2 808	89,9							
oct	2015-10-31	31	84 268,33	2 890	2 626	2 890	2 626	90,9							
nov	2015-11-30	30	76 259,19	2 981	2 717	2 981	2 717	91,1							
dec	2015-12-31	31	71 388,70	2 957	2 693	2 957	2 693	91,1							
<b>2015</b>	<b>2015</b>	<b>365</b>	<b>987 494,63</b>	<b>36 457</b>	<b>0</b>	<b>36 457</b>	<b>0</b>	<b>32 728</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2015</b>

Mathematical model for electrical consumption (Section A - Page 3 of 3)

Demo - Industry A

Billing Month	End Date of billing period	Electrical billing period		Amount of electrical bill without taxes	Maximum Demand		Billed Demand	Maximum Real Demand		Power Factor	Off peak				
		Days	2016		KVA	2016		KW	2016		KVA	2016	Billed Demand	Maximum Real Demand	Power Factor
2016	2016			2016	2016	2016	2016	2016	2016	2016	2016	2016	2016	2016	2016
jan	2016-01-31	31	84 782,36	2 990	2 746	91,8									
feb	2016-02-29	29	72 808,19	2 827	2 573	91,0									
mar	2016-03-31	31	83 455,15	2 938	2 654	90,4									
apr	2016-04-30	30	83 678,54	3 149	2 726	86,6									
may	2016-05-31	31	88 982,09	3 221	2 866	89,0									
jun	2016-06-30	30	82 592,74	3 120	2 765	88,6									
jul	2016-07-31	31	87 040,46	3 158	2 794	88,4									
aug	2016-08-31	31	86 683,68	3 101	2 760	89,0									
sep	2016-09-30	30	85 555,18	3 125	2 808	89,9									
oct	2016-10-31	31	84 268,33	2 890	2 626	90,9									
nov	2016-11-30	30	76 259,19	2 981	2 717	91,1									
dec	2016-12-31	31	71 388,70	2 957	2 693	91,1									
		<b>366</b>	<b>987 494,63</b>	<b>36 457</b>	<b>0</b>		<b>0</b>	<b>32 728</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
2017	2017		2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017
jan	2017-01-31	31	84 782,36	2 990	2 746	91,8									
feb	2017-02-28	28	72 808,19	2 827	2 573	91,0									
mar	2017-03-31	31	83 455,15	2 938	2 654	90,4									
apr	2017-04-30	30	83 678,54	3 149	2 726	86,6									
may	2017-05-31	31	88 982,09	3 221	2 866	89,0									
jun	2017-06-30	30	82 592,74	3 120	2 765	88,6									
jul	2017-07-31	31	87 040,46	3 158	2 794	88,4									
aug	2017-08-31	31	86 683,68	3 101	2 760	89,0									
sep	2017-09-30	30	85 555,18	3 125	2 808	89,9									
oct	2017-10-31	31	84 268,33	2 890	2 626	90,9									
nov	2017-11-30	30	76 259,19	2 981	2 717	91,1									
		<b>334</b>	<b>916 105,94</b>	<b>33 500</b>	<b>0</b>		<b>0</b>	<b>30 035</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Mathematical model for electrical consumption (Section B - Page 1 of 3)

Demo - Industry A

Electrical Consumption	On Site Electrical Production		On Peak Electrical Consumption		Load Factor		Electrical Consumption		Adjusted Production days		«On Power» Period		Base Load without production		Base Load with production	
	KWH	KWH	KWH	%	%	%	Per Day	KWH/Day	Days	Days	Days	Days	KW	KW	KW	KW
2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012	2012
1 492 800	0	0	73,1	48 155	239	31,00	31,00	31,00	0	823						
1 291 200	0	0	72,1	44 524	176	28,00	29,00	823								
1 464 000	0	0	74,1	47 226	205	31,00	31,00	0	852							
1 435 200	0	0	73,1	47 840	243	30,00	30,00	0	852							
1 536 000	0	0	72,0	49 548	275	31,00	31,00	0	833							
1 411 200	0	0	70,9	47 040	221	30,00	30,00	0	852							
1 497 600	0	0	72,1	48 310	202	31,00	31,00	0	852							
1 507 200	0	0	73,4	48 619	164	31,00	31,00	0	833							
1 502 400	0	0	74,3	50 080	144	30,00	30,00	0	852							
1 497 600	0	0	76,7	48 310	187	31,00	31,00	0	852							
1 248 000	0	0	63,8	41 600	206	30,00	30,00	0	802							
1 421 867	0	0	71,0	45 867	140	31,00	31,00	0	852							
<b>17 305 068</b>	<b>0</b>	<b>0</b>		<b>567 119</b>	<b>2 402</b>	<b>365,00</b>	<b>366,00</b>	<b>823</b>								
<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>
1 492 800	0	0	73,1	48 155	239	31,00	31,00	0	823							
1 291 200	0	0	74,7	46 114	176	28,00	28,00	0	852							
1 464 000	0	0	74,1	47 226	205	31,00	31,00	0	852							
1 435 200	0	0	73,1	47 840	243	30,00	30,00	0	852							
1 536 000	0	0	72,0	49 548	275	31,00	31,00	0	833							
1 411 200	0	0	70,9	47 040	221	30,00	30,00	0	852							
1 497 600	0	0	72,1	48 310	202	31,00	31,00	0	852							
1 507 200	0	0	73,4	48 619	164	31,00	31,00	0	833							
1 502 400	0	0	74,3	50 080	144	30,00	30,00	0	852							
1 497 600	0	0	76,7	48 310	187	31,00	31,00	0	852							
1 248 000	0	0	63,8	41 600	206	30,00	30,00	0	802							
1 421 867	0	0	71,0	45 867	140	31,00	31,00	0	852							
<b>17 305 068</b>	<b>0</b>	<b>0</b>		<b>568 709</b>	<b>2 402</b>	<b>365,00</b>	<b>365,00</b>	<b>823</b>								
<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>

Mathematical model for electrical consumption (Section B - Page 2 of 3)

Demo - Industry A

Electrical Consumption	On Site Electrical Production		On Peak Electrical Consumption		Load Factor		Electrical Consumption		Adjusted Production days		«On Power» Period		Base Load without production		Base Load with production			
	KWH	2014	KWH	2014	%	2014	Per Day	2014	KWH/Day	2014	Days	2014	Days	2014	Days	2014	2014	
KWH	2015	2015	2015	2015	%	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	
1 492 800	0	0	0	0	73,1	48 155	239	31,00	31,00	31,00	31,00	31,00	0	823	0	823	0	
1 291 200	0	0	0	0	74,7	46 114	176	28,00	28,00	28,00	28,00	28,00	0	852	0	852	0	
1 464 000	0	0	0	0	74,1	47 226	205	31,00	31,00	31,00	31,00	31,00	0	852	0	852	0	
1 435 200	0	0	0	0	73,1	47 840	243	30,00	30,00	30,00	30,00	30,00	0	852	0	852	0	
1 536 000	0	0	0	0	72,0	49 548	275	31,00	31,00	31,00	31,00	31,00	0	833	0	833	0	
1 411 200	0	0	0	0	70,9	47 040	221	30,00	30,00	30,00	30,00	30,00	0	852	0	852	0	
1 497 600	0	0	0	0	72,1	48 310	202	31,00	31,00	31,00	31,00	31,00	0	852	0	852	0	
1 507 200	0	0	0	0	73,4	48 619	164	31,00	31,00	31,00	31,00	31,00	0	833	0	833	0	
1 502 400	0	0	0	0	74,3	50 080	144	30,00	30,00	30,00	30,00	30,00	0	852	0	852	0	
1 497 600	0	0	0	0	76,7	48 310	187	31,00	31,00	31,00	31,00	31,00	0	852	0	852	0	
1 248 000	0	0	0	0	63,8	41 600	206	30,00	30,00	30,00	30,00	30,00	0	802	0	802	0	
1 421 867	0	0	0	0	71,0	45 867	140	31,00	31,00	31,00	31,00	31,00	0	852	0	852	0	
<b>17 305 068</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>568 709</b>	<b>2 402</b>	<b>365,00</b>	<b>365,00</b>	<b>365,00</b>	<b>365,00</b>	<b>365,00</b>	<b>0</b>	<b>10 107</b>	<b>0</b>	<b>10 107</b>	<b>0</b>	
<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>		<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>
1 492 800	0	0	0	0	73,1	48 155	239	31,00	31,00	31,00	31,00	31,00	0	823	0	823	0	
1 291 200	0	0	0	0	74,7	46 114	176	28,00	28,00	28,00	28,00	28,00	0	852	0	852	0	
1 464 000	0	0	0	0	74,1	47 226	205	31,00	31,00	31,00	31,00	31,00	0	852	0	852	0	
1 435 200	0	0	0	0	73,1	47 840	243	30,00	30,00	30,00	30,00	30,00	0	852	0	852	0	
1 536 000	0	0	0	0	72,0	49 548	275	31,00	31,00	31,00	31,00	31,00	0	833	0	833	0	
1 411 200	0	0	0	0	70,9	47 040	221	30,00	30,00	30,00	30,00	30,00	0	852	0	852	0	
1 497 600	0	0	0	0	72,1	48 310	202	31,00	31,00	31,00	31,00	31,00	0	852	0	852	0	
1 507 200	0	0	0	0	73,4	48 619	164	31,00	31,00	31,00	31,00	31,00	0	833	0	833	0	
1 502 400	0	0	0	0	74,3	50 080	144	30,00	30,00	30,00	30,00	30,00	0	852	0	852	0	
1 497 600	0	0	0	0	76,7	48 310	187	31,00	31,00	31,00	31,00	31,00	0	852	0	852	0	
1 248 000	0	0	0	0	63,8	41 600	206	30,00	30,00	30,00	30,00	30,00	0	802	0	802	0	
1 421 867	0	0	0	0	71,0	45 867	140	31,00	31,00	31,00	31,00	31,00	0	852	0	852	0	
<b>17 305 068</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>568 709</b>	<b>2 402</b>	<b>365,00</b>	<b>365,00</b>	<b>365,00</b>	<b>365,00</b>	<b>365,00</b>	<b>0</b>	<b>10 107</b>	<b>0</b>	<b>10 107</b>	<b>0</b>	



Mathematical model for electrical consumption (Section B - Page 3 of 3)

Demo - Industry A

Electrical Consumption	On Site Electrical Production		On Peak Electrical Consumption		Load Factor		Electrical Consumption		Adjusted Production days		«On Power» Period		Base Load without production		Base Load with production			
	KWH	2016	KWH	2016	%	2016	Per Day	2016	KWH/Day	2016	Days	2016	Days	2016	Days	2016	KW	2016
KWH	2017	2017	2017	2017	%	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017
1 492 800	0	0	0	73,1	48 155	239	31,00	31,00	31,00	31,00	31,00	31,00	0	823				
1 291 200	0	0	0	72,1	44 524	176	28,00	28,00	28,00	28,00	28,00	28,00	0	823				
1 464 000	0	0	0	74,1	47 226	205	31,00	31,00	31,00	31,00	31,00	31,00	0	852				
1 435 200	0	0	0	73,1	47 840	243	30,00	30,00	30,00	30,00	30,00	30,00	0	852				
1 536 000	0	0	0	72,0	49 548	275	31,00	31,00	31,00	31,00	31,00	31,00	0	833				
1 411 200	0	0	0	70,9	47 040	221	30,00	30,00	30,00	30,00	30,00	30,00	0	852				
1 497 600	0	0	0	72,1	48 310	202	31,00	31,00	31,00	31,00	31,00	31,00	0	852				
1 507 200	0	0	0	73,4	48 619	164	31,00	31,00	31,00	31,00	31,00	31,00	0	833				
1 502 400	0	0	0	74,3	50 080	144	30,00	30,00	30,00	30,00	30,00	30,00	0	852				
1 497 600	0	0	0	76,7	48 310	187	31,00	31,00	31,00	31,00	31,00	31,00	0	852				
1 248 000	0	0	0	63,8	41 600	206	30,00	30,00	30,00	30,00	30,00	30,00	0	802				
1 421 867	0	0	0	71,0	45 867	140	31,00	31,00	31,00	31,00	31,00	31,00	0	852				
<b>17 305 068</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>567 119</b>	<b>2 402</b>	<b>365,00</b>	<b>365,00</b>	<b>365,00</b>	<b>366,00</b>	<b>366,00</b>	<b>366,00</b>	<b>823</b>	<b>10 078</b>				
1 492 800	0	0	0	73,1	48 155	239	31,00	31,00	31,00	31,00	31,00	31,00	0	823				
1 291 200	0	0	0	74,7	46 114	176	28,00	28,00	28,00	28,00	28,00	28,00	0	852				
1 464 000	0	0	0	74,1	47 226	205	31,00	31,00	31,00	31,00	31,00	31,00	0	852				
1 435 200	0	0	0	73,1	47 840	243	30,00	30,00	30,00	30,00	30,00	30,00	0	852				
1 536 000	0	0	0	72,0	49 548	275	31,00	31,00	31,00	31,00	31,00	31,00	0	833				
1 411 200	0	0	0	70,9	47 040	221	30,00	30,00	30,00	30,00	30,00	30,00	0	852				
1 497 600	0	0	0	72,1	48 310	202	31,00	31,00	31,00	31,00	31,00	31,00	0	852				
1 507 200	0	0	0	73,4	48 619	164	31,00	31,00	31,00	31,00	31,00	31,00	0	833				
1 502 400	0	0	0	74,3	50 080	144	30,00	30,00	30,00	30,00	30,00	30,00	0	852				
1 497 600	0	0	0	76,7	48 310	187	31,00	31,00	31,00	31,00	31,00	31,00	0	852				
1 248 000	0	0	0	63,8	41 600	206	30,00	30,00	30,00	30,00	30,00	30,00	0	802				
<b>15 883 200</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>522 842</b>	<b>2 262</b>	<b>334,00</b>	<b>334,00</b>	<b>334,00</b>	<b>334,00</b>	<b>334,00</b>	<b>334,00</b>	<b>0</b>	<b>9 255</b>				

Mathematical model for electrical consumption (Section C - Page 1 of 3)

Demo - Industry A

Base Load Consumption	Ventilation load		Ventilation load consumption		Adjusted Heating Degree Days	Adjusted Cooling Degree Days	Adjusted Relative Humidity	Adjusted Average Temperature Dry Bulb		Adjusted Average Temperature Wet Bulb		Adjusted Sunny Time	Adjusted Wind Velocity	Water Temperature
	KW	KWH	2012	2013				°C	°C	°C	°C			
612 288	327	243 288	636	0	0,0	-2,5	-2,5	0	0	0,0	0	0	0,0	
572 544	316	219 744	457	0	0,0	2,2	2,2	0	0	0,0	0	0	0,0	
633 888	327	243 288	256	0	0,0	9,7	9,7	0	0	0,0	0	0	0,0	
613 440	327	235 440	108	37	0,0	15,6	15,6	0	0	0,0	0	0	0,0	
619 488	327	243 288	32	44	0,0	18,4	18,4	0	0	0,0	0	0	0,0	
613 440	327	235 440	5	160	0,0	23,2	23,2	0	0	0,0	0	0	0,0	
633 888	327	243 288	9	99	0,0	20,9	20,9	0	0	0,0	0	0	0,0	
619 488	327	243 288	84	33	0,0	16,3	16,3	0	0	0,0	0	0	0,0	
613 440	327	235 440	301	0	0,0	8,0	8,0	0	0	0,0	0	0	0,0	
633 888	327	243 288	467	0	0,0	2,9	2,9	0	0	0,0	0	0	0,0	
577 440	327	235 440	739	0	0,0	-6,6	-6,6	0	0	0,0	0	0	0,0	
633 888	327	243 288	756	0	0,0	-6,4	-6,4	0	0	0,0	0	0	0,0	
<b>7 377 120</b>	<b>3 913</b>	<b>2 864 520</b>						<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>	
<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>
612 288	327	243 288	636	0	0,0	-2,5	-2,5	0	0	0,0	0	0	0,0	
572 544	327	219 744	457	0	0,0	1,7	1,7	0	0	0,0	0	0	0,0	
633 888	327	243 288	256	0	0,0	9,7	9,7	0	0	0,0	0	0	0,0	
613 440	327	235 440	108	37	0,0	15,6	15,6	0	0	0,0	0	0	0,0	
619 488	327	243 288	32	44	0,0	18,4	18,4	0	0	0,0	0	0	0,0	
613 440	327	235 440	5	160	0,0	23,2	23,2	0	0	0,0	0	0	0,0	
633 888	327	243 288	9	99	0,0	20,9	20,9	0	0	0,0	0	0	0,0	
619 488	327	243 288	84	33	0,0	16,3	16,3	0	0	0,0	0	0	0,0	
613 440	327	235 440	301	0	0,0	8,0	8,0	0	0	0,0	0	0	0,0	
633 888	327	243 288	467	0	0,0	2,9	2,9	0	0	0,0	0	0	0,0	
577 440	327	235 440	739	0	0,0	-6,6	-6,6	0	0	0,0	0	0	0,0	
633 888	327	243 288	756	0	0,0	-6,4	-6,4	0	0	0,0	0	0	0,0	
<b>7 377 120</b>	<b>3 924</b>	<b>2 864 520</b>						<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>	

Mathematical model for electrical consumption (Section C - Page 2 of 3)

Demo - Industry A

Base Load Consumption	Ventilation load		Ventilation load consumption		Adjusted Heating Degree Days	Adjusted Cooling Degree Days	Adjusted Relative Humidity	Adjusted Average Temperature Dry Bulb		Adjusted Average Temperature Wet Bulb		Adjusted Sunny Time	Adjusted Wind Velocity	Water Temperature
	KW	KWH	2014	2015				°C	°C	°C	°C			
612 288	327	243 288	636	0	0,0	-2,5	-2,5	0	0,0	0	0,0	0	0	0,0
572 544	327	219 744	457	0	0,0	1,7	1,7	0	0,0	0	0,0	0	0	0,0
633 888	327	243 288	256	0	0,0	9,7	9,7	0	0,0	0	0,0	0	0	0,0
613 440	327	235 440	108	37	0,0	15,6	15,6	0	0,0	0	0,0	0	0	0,0
619 488	327	243 288	32	44	0,0	18,4	18,4	0	0,0	0	0,0	0	0	0,0
613 440	327	235 440	5	160	0,0	23,2	23,2	0	0,0	0	0,0	0	0	0,0
633 888	327	243 288	9	99	0,0	20,9	20,9	0	0,0	0	0,0	0	0	0,0
619 488	327	243 288	84	33	0,0	16,3	16,3	0	0,0	0	0,0	0	0	0,0
613 440	327	235 440	301	0	0,0	8,0	8,0	0	0,0	0	0,0	0	0	0,0
633 888	327	243 288	467	0	0,0	2,9	2,9	0	0,0	0	0,0	0	0	0,0
577 440	327	235 440	739	0	0,0	-6,6	-6,6	0	0,0	0	0,0	0	0	0,0
633 888	327	243 288	756	0	0,0	-6,4	-6,4	0	0,0	0	0,0	0	0	0,0
<b>7 377 120</b>	<b>3 924</b>	<b>2 864 520</b>						<b>0</b>				<b>0</b>	<b>0</b>	
<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>	<b>2015</b>
612 288	327	243 288	1 563	0	0,0	-7,2	-14,4	0	0,0	0	0,0	0	0	1,5
572 544	327	219 744	1 386	0	0,0	-6,8	-13,5	0	0,0	0	0,0	0	0	1,0
633 888	327	243 288	958	0	0,0	2,5	5,1	0	0,0	0	0,0	0	0	1,0
613 440	327	235 440	465	37	0,0	10,9	21,7	0	0,0	0	0,0	0	0	3,0
619 488	327	243 288	74	31	0,0	16,6	16,6	0	0,0	0	0,0	0	0	8,5
613 440	327	235 440	41	27	0,0	17,5	17,5	0	0,0	0	0,0	0	0	11,4
633 888	327	243 288	2	113	0,0	21,6	21,6	0	0,0	0	0,0	0	0	20,0
619 488	327	243 288	1	100	0,0	21,2	21,2	0	0,0	0	0,0	0	0	21,0
613 440	327	235 440	40	64	0,0	18,8	18,8	0	0,0	0	0,0	0	0	20,0
633 888	327	243 288	312	0	0,0	7,9	7,9	0	0,0	0	0,0	0	0	18,6
577 440	327	235 440	414	0	0,0	4,2	4,2	0	0,0	0	0,0	0	0	7,0
633 888	327	243 288	500	0	0,0	1,9	1,9	0	0,0	0	0,0	0	0	3,5
<b>7 377 120</b>	<b>3 924</b>	<b>2 864 520</b>						<b>0</b>				<b>0</b>	<b>0</b>	

Mathematical model for electrical consumption (Section C - Page 3 of 3)

Demo - Industry A

Base Load Consumption	Ventilation load		Ventilation load consumption	Adjusted Heating Degree Days		Adjusted Cooling Degree Days		Adjusted Relative Humidity		Adjusted Average Temperature Dry Bulb		Adjusted Average Temperature Wet Bulb		Adjusted Sunny Time		Adjusted Wind Velocity		Water Temperature		
	KWH	KW		KWH	Degree	Degree	%	°C	°C	°C	Hours	KM/Hr	°C	°C	2016	2017	2016	2017	2016	2017
612 288	327	243 288	755	0	0,0	-6,4	-6,4	0	0,0	0	0	-6,4	0	0	0	0	0	1,5	1,5	
572 544	316	219 744	702	0	0,0	-6,2	-6,2	0	0,0	0	0	-6,2	0	0	0	0	0	1,0	1,0	
633 888	327	243 288	555	0	0,0	0,1	0,1	0	0,0	0	0	0,1	0	0	0	0	0	1,0	1,0	
613 440	327	235 440	418	0	0,0	4,1	4,1	0	0,0	0	0	4,1	0	0	0	0	0	3,0	3,0	
619 488	327	243 288	132	30	0,0	14,7	14,7	30	0,0	0	0	14,7	0	0	0	0	0	8,5	8,5	
613 440	327	235 440	31	69	0,0	19,3	19,3	69	0,0	0	0	19,3	0	0	0	0	0	11,4	11,4	
633 888	327	243 288	4	127	0,0	22,0	22,0	127	0,0	0	0	22,0	0	0	0	0	0	20,0	20,0	
619 488	327	243 288	0	147	0,0	22,7	22,7	147	0,0	0	0	22,7	0	0	0	0	0	21,0	21,0	
613 440	327	235 440	55	39	0,0	17,5	17,5	39	0,0	0	0	17,5	0	0	0	0	0	20,0	20,0	
633 888	327	243 288	256	0	0,0	9,7	9,7	0	0,0	0	0	9,7	0	0	0	0	0	18,6	18,6	
577 440	327	235 440	422	0	0,0	3,9	3,9	0	0,0	0	0	3,9	0	0	0	0	0	7,0	7,0	
633 888	327	243 288	672	0	0,0	-3,7	-3,7	0	0,0	0	0	-3,7	0	0	0	0	0	3,5	3,5	
<b>7 377 120</b>	<b>3 913</b>	<b>2 864 520</b>												<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>			
<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>
612 288	327	243 288	705	0	0,0	-4,7	-4,7	0	0,0	0	0	-4,7	0	0	0	0	0	1,5	1,5	
572 544	327	219 744	615	0	0,0	-4,0	-4,0	0	0,0	0	0	-4,0	0	0	0	0	0	1,0	1,0	
633 888	327	243 288	697	0	0,0	-4,5	-4,5	0	0,0	0	0	-4,5	0	0	0	0	0	1,0	1,0	
613 440	327	235 440	304	0	0,0	7,9	7,9	0	0,0	0	0	7,9	0	0	0	0	0	3,0	3,0	
619 488	327	243 288	162	11	0,0	13,1	13,1	11	0,0	0	0	13,1	0	0	0	0	0	8,5	8,5	
613 440	327	235 440	33	54	0,0	18,7	18,7	54	0,0	0	0	18,7	0	0	0	0	0	11,4	11,4	
633 888	327	243 288	2	89	0,0	20,8	20,8	89	0,0	0	0	20,8	0	0	0	0	0	20,0	20,0	
619 488	327	243 288	13	71	0,0	19,9	19,9	71	0,0	0	0	19,9	0	0	0	0	0	21,0	21,0	
613 440	327	235 440	52	65	0,0	18,4	18,4	65	0,0	0	0	18,4	0	0	0	0	0	20,0	20,0	
633 888	327	243 288	150	4	0,0	13,3	13,3	4	0,0	0	0	13,3	0	0	0	0	0	18,6	18,6	
577 440	327	235 440	491	0	0,0	1,6	1,6	0	0,0	0	0	1,6	0	0	0	0	0	7,0	7,0	
<b>6 743 232</b>	<b>3 597</b>	<b>2 621 232</b>												<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>			

Mathematical model for electrical consumption (Section D - Page 1 of 3)

Demo - Industry A

Ventilation heating set point	Ventilation Heating Losses	Ventilation Heating Consumption	Heating Set Point	Heating Losses	Heating Consumption	Cooling Set point	Cooling Losses	Cooling Consumption	Cooling Fix load
°C	KWH/D. D.	KWH	°C	KWH/D. D.	KWH	°C	KWH/D. D.	KWH	KW
2012	2012	2012	2012	2012	2012	2012	2012	2012	2012
	0	0	18,0	53	33 598	18,0	0	0	559
	0	0	18,0	53	24 126	18,0	0	0	559
	0	0	18,0	53	13 528	18,0	0	0	640
	0	0	18,0	53	3 765	18,0	0	0	640
	0	0	18,0	0	0	18,0	64	721	699
	0	0	18,0	0	0	18,0	64	9 895	601
	0	0	18,0	0	0	18,0	64	5 729	601
	0	0	18,0	53	2 730	18,0	0	0	699
	0	0	18,0	53	15 867	18,0	0	0	559
	0	0	18,0	53	24 638	18,0	0	0	559
	0	0	18,0	53	39 021	18,0	0	0	559
	0	0	18,0	53	39 935	18,0	0	0	559
	<b>0</b>	<b>0</b>		<b>477</b>	<b>197 208</b>		<b>192</b>	<b>16 345</b>	<b>7 234</b>
2013	2013	2013	2013	2013	2013	2013	2013	2013	2013
	0	0	18,0	53	33 598	18,0	0	0	559
	0	0	18,0	53	24 126	18,0	0	0	559
	0	0	18,0	53	13 528	18,0	0	0	640
	0	0	18,0	53	3 765	18,0	0	0	640
	0	0	18,0	0	0	18,0	64	721	699
	0	0	18,0	0	0	18,0	64	9 895	601
	0	0	18,0	0	0	18,0	64	5 729	601
	0	0	18,0	53	2 730	18,0	0	0	699
	0	0	18,0	53	15 867	18,0	0	0	559
	0	0	18,0	53	24 638	18,0	0	0	559
	0	0	18,0	53	39 021	18,0	0	0	559
	0	0	18,0	53	39 935	18,0	0	0	559
	<b>0</b>	<b>0</b>		<b>477</b>	<b>197 208</b>		<b>192</b>	<b>16 345</b>	<b>7 234</b>

Mathematical model for electrical consumption (Section D - Page 2 of 3)

Demo - Industry A

Ventilation heating set point	Ventilation Heating Losses	Ventilation Heating Consumption	Heating Set Point	Heating Losses	Heating Consumption	Cooling Set point	Cooling Losses	Cooling Consumption	Cooling Fix load
°C	KWH/D. D.	KWH	°C	KWH/D. D.	KWH	°C	KWH/D. D.	KWH	KW
2014	2014	2014	2014	2014	2014	2014	2014	2014	2014
	0	0	18,0	53	33 598	18,0	0	0	559
	0	0	18,0	53	24 126	18,0	0	0	559
	0	0	18,0	53	13 528	18,0	0	0	640
	0	0	18,0	53	3 765	18,0	0	0	640
	0	0	18,0	0	0	18,0	64	721	699
	0	0	18,0	0	0	18,0	64	9 895	601
	0	0	18,0	0	0	18,0	64	5 729	601
	0	0	18,0	53	2 730	18,0	0	0	699
	0	0	18,0	53	15 867	18,0	0	0	559
	0	0	18,0	53	24 638	18,0	0	0	559
	0	0	18,0	53	39 021	18,0	0	0	559
	0	0	18,0	53	39 935	18,0	0	0	559
	<b>0</b>	<b>0</b>		<b>477</b>	<b>197 208</b>		<b>192</b>	<b>16 345</b>	<b>7 234</b>
2015	2015	2015	2015	2015	2015	2015	2015	2015	2015
	0	0	18,0	53	41 255	18,0	0	0	559
	0	0	18,0	53	36 598	18,0	0	0	559
	0	0	18,0	53	25 300	18,0	0	0	559
	0	0	18,0	53	11 321	18,0	0	0	640
	0	0	18,0	53	2 276	18,0	0	0	699
	0	0	18,0	53	771	18,0	0	0	699
	0	0	18,0	0	0	18,0	64	7 068	601
	0	0	18,0	0	0	18,0	64	6 277	601
	0	0	18,0	0	0	18,0	64	1 563	699
	0	0	18,0	53	16 459	18,0	0	0	559
	0	0	18,0	53	21 871	18,0	0	0	559
	0	0	18,0	53	26 386	18,0	0	0	559
	<b>0</b>	<b>0</b>		<b>477</b>	<b>182 237</b>		<b>192</b>	<b>14 908</b>	<b>7 293</b>

Mathematical model for electrical consumption (Section D - Page 3 of 3)

Demo - Industry A

Ventilation heating set point	Ventilation Heating Losses	Ventilation Heating Consumption	Heating Set Point	Heating Losses	Heating Consumption	Cooling Set point	Cooling Losses	Cooling Consumption	Cooling Fix load
°C	KWH/D. D.	KWH	°C	KWH/D. D.	KWH	°C	KWH/D. D.	KWH	KW
2016	2016	2016	2016	2016	2016	2016	2016	2016	2016
	0	0	18,0	53	39 882	18,0	0	0	559
	0	0	18,0	53	37 052	18,0	0	0	559
	0	0	18,0	53	29 295	18,0	0	0	559
	0	0	18,0	53	22 056	18,0	0	0	559
	0	0	18,0	53	5 391	18,0	0	0	640
	0	0	18,0	0	0	18,0	64	2 431	699
	0	0	18,0	0	0	18,0	64	7 885	601
	0	0	18,0	0	0	18,0	64	9 340	601
	0	0	18,0	53	845	18,0	0	0	699
	0	0	18,0	53	13 539	18,0	0	0	640
	0	0	18,0	53	22 293	18,0	0	0	559
	0	0	18,0	53	35 462	18,0	0	0	559
	<b>0</b>	<b>0</b>		<b>477</b>	<b>205 815</b>		<b>192</b>	<b>19 656</b>	<b>7 234</b>
2017	2017	2017	2017	2017	2017	2017	2017	2017	2017
	0	0	18,0	53	37 205	18,0	0	0	559
	0	0	18,0	53	32 458	18,0	0	0	559
	0	0	18,0	53	36 793	18,0	0	0	559
	0	0	18,0	53	16 073	18,0	0	0	559
	0	0	18,0	53	7 957	18,0	0	0	640
	0	0	18,0	0	0	18,0	64	1 308	699
	0	0	18,0	0	0	18,0	64	5 550	601
	0	0	18,0	0	0	18,0	64	3 726	699
	0	0	18,0	0	0	18,0	64	804	699
	0	0	18,0	53	7 709	18,0	0	0	640
	0	0	18,0	53	25 937	18,0	0	0	559
	<b>0</b>	<b>0</b>		<b>371</b>	<b>164 132</b>		<b>256</b>	<b>11 388</b>	<b>6 773</b>

Mathematical model for electrical consumption (Section E - Page 1 of 3)

Demo - Industry A

Cooling Fix Load Consumption	Refrigeration Set Point		Refrigeration Consumption		Freezer Set Point		Freezer Consumption		Adjusted Equivalent Production		Number of linear segment		Production Related Consumption		Model Consumption		Real consumption		Difference					
	KWH	°C	KWH	2012	2013	°C	KWH	2012	2013	Unit	2012	2013	KWH	2012	2013	KWH	2012	2013	KWH	2012	2013	%	2012	2013
415 543	4,0	0	0	-18,0	0	6 250	1	1 880	1 379 784	1 492 800	113 016	7,6	1 379 784	1 492 800	113 016	7,6	1 379 784	1 492 800	113 016	7,6	1 379 784	1 492 800	113 016	7,6
388 734	4,0	0	0	-18,0	0	7 349	1	2 140	1 315 321	1 291 200	-24 121	-1,9	1 315 321	1 291 200	-24 121	-1,9	1 315 321	1 291 200	-24 121	-1,9	1 315 321	1 291 200	-24 121	-1,9
476 330	4,0	0	0	-18,0	0	7 155	1	2 094	1 476 223	1 464 000	-12 223	-0,8	1 476 223	1 464 000	-12 223	-0,8	1 476 223	1 464 000	-12 223	-0,8	1 476 223	1 464 000	-12 223	-0,8
460 964	4,0	0	0	-18,0	0	5 911	1	1 799	1 419 049	1 435 200	16 151	1,1	1 419 049	1 435 200	16 151	1,1	1 419 049	1 435 200	16 151	1,1	1 419 049	1 435 200	16 151	1,1
519 813	4,0	0	0	-18,0	0	5 585	1	1 722	1 469 522	1 536 000	66 478	4,3	1 469 522	1 536 000	66 478	4,3	1 469 522	1 536 000	66 478	4,3	1 469 522	1 536 000	66 478	4,3
432 364	4,0	0	0	-18,0	0	6 387	1	1 912	1 396 691	1 411 200	14 509	1,0	1 396 691	1 411 200	14 509	1,0	1 396 691	1 411 200	14 509	1,0	1 396 691	1 411 200	14 509	1,0
446 776	4,0	0	0	-18,0	0	7 408	1	2 154	1 438 930	1 497 600	58 670	3,9	1 438 930	1 497 600	58 670	3,9	1 438 930	1 497 600	58 670	3,9	1 438 930	1 497 600	58 670	3,9
519 813	4,0	0	0	-18,0	0	9 207	1	2 580	1 472 389	1 507 200	34 811	2,3	1 472 389	1 507 200	34 811	2,3	1 472 389	1 507 200	34 811	2,3	1 472 389	1 507 200	34 811	2,3
402 138	4,0	0	0	-18,0	0	10 448	1	2 874	1 373 401	1 502 400	128 999	8,6	1 373 401	1 502 400	128 999	8,6	1 373 401	1 502 400	128 999	8,6	1 373 401	1 502 400	128 999	8,6
415 543	4,0	0	0	-18,0	0	8 011	1	2 297	1 426 749	1 497 600	70 851	4,7	1 426 749	1 497 600	70 851	4,7	1 426 749	1 497 600	70 851	4,7	1 426 749	1 497 600	70 851	4,7
402 138	4,0	0	0	-18,0	0	6 048	1	1 832	1 302 999	1 248 000	-54 999	-4,4	1 302 999	1 248 000	-54 999	-4,4	1 302 999	1 248 000	-54 999	-4,4	1 302 999	1 248 000	-54 999	-4,4
415 543	4,0	0	0	-18,0	0	10 146	1	2 803	1 442 552	1 421 867	-20 685	-1,5	1 442 552	1 421 867	-20 685	-1,5	1 442 552	1 421 867	-20 685	-1,5	1 442 552	1 421 867	-20 685	-1,5
<b>5 295 699</b>		<b>0</b>	<b>0</b>		<b>0</b>	<b>89 905</b>	<b>0</b>	<b>26 087</b>	<b>16 913 610</b>	<b>17 305 066</b>	<b>391 457</b>		<b>16 913 610</b>	<b>17 305 066</b>	<b>391 457</b>		<b>16 913 610</b>	<b>17 305 066</b>	<b>391 457</b>		<b>16 913 610</b>	<b>17 305 066</b>	<b>391 457</b>	
415 543	4,0	0	0	-18,0	0	6 250	1	1 880	1 379 784	1 492 800	113 016	7,6	1 379 784	1 492 800	113 016	7,6	1 379 784	1 492 800	113 016	7,6	1 379 784	1 492 800	113 016	7,6
375 329	4,0	0	0	-18,0	0	7 349	1	2 140	1 290 614	1 291 200	586	0,0	1 290 614	1 291 200	586	0,0	1 290 614	1 291 200	586	0,0	1 290 614	1 291 200	586	0,0
476 330	4,0	0	0	-18,0	0	7 155	1	2 094	1 476 223	1 464 000	-12 223	-0,8	1 476 223	1 464 000	-12 223	-0,8	1 476 223	1 464 000	-12 223	-0,8	1 476 223	1 464 000	-12 223	-0,8
460 964	4,0	0	0	-18,0	0	5 911	1	1 799	1 419 049	1 435 200	16 151	1,1	1 419 049	1 435 200	16 151	1,1	1 419 049	1 435 200	16 151	1,1	1 419 049	1 435 200	16 151	1,1
519 813	4,0	0	0	-18,0	0	5 585	1	1 722	1 469 522	1 536 000	66 478	4,3	1 469 522	1 536 000	66 478	4,3	1 469 522	1 536 000	66 478	4,3	1 469 522	1 536 000	66 478	4,3
432 364	4,0	0	0	-18,0	0	6 387	1	1 912	1 396 691	1 411 200	14 509	1,0	1 396 691	1 411 200	14 509	1,0	1 396 691	1 411 200	14 509	1,0	1 396 691	1 411 200	14 509	1,0
446 776	4,0	0	0	-18,0	0	7 408	1	2 154	1 438 930	1 497 600	58 670	3,9	1 438 930	1 497 600	58 670	3,9	1 438 930	1 497 600	58 670	3,9	1 438 930	1 497 600	58 670	3,9
519 813	4,0	0	0	-18,0	0	9 207	1	2 580	1 472 389	1 507 200	34 811	2,3	1 472 389	1 507 200	34 811	2,3	1 472 389	1 507 200	34 811	2,3	1 472 389	1 507 200	34 811	2,3
402 138	4,0	0	0	-18,0	0	10 448	1	2 874	1 373 401	1 502 400	128 999	8,6	1 373 401	1 502 400	128 999	8,6	1 373 401	1 502 400	128 999	8,6	1 373 401	1 502 400	128 999	8,6
415 543	4,0	0	0	-18,0	0	8 011	1	2 297	1 426 749	1 497 600	70 851	4,7	1 426 749	1 497 600	70 851	4,7	1 426 749	1 497 600	70 851	4,7	1 426 749	1 497 600	70 851	4,7
402 138	4,0	0	0	-18,0	0	6 048	1	1 832	1 302 999	1 248 000	-54 999	-4,4	1 302 999	1 248 000	-54 999	-4,4	1 302 999	1 248 000	-54 999	-4,4	1 302 999	1 248 000	-54 999	-4,4
415 543	4,0	0	0	-18,0	0	10 146	1	2 803	1 442 552	1 421 867	-20 685	-1,5	1 442 552	1 421 867	-20 685	-1,5	1 442 552	1 421 867	-20 685	-1,5	1 442 552	1 421 867	-20 685	-1,5
<b>5 282 294</b>		<b>0</b>	<b>0</b>		<b>0</b>	<b>89 905</b>	<b>0</b>	<b>26 087</b>	<b>16 888 904</b>	<b>17 305 066</b>	<b>416 164</b>		<b>16 888 904</b>	<b>17 305 066</b>	<b>416 164</b>		<b>16 888 904</b>	<b>17 305 066</b>	<b>416 164</b>		<b>16 888 904</b>	<b>17 305 066</b>	<b>416 164</b>	



Mathematical model for electrical consumption (Section E - Page 2 of 3)

Demo - Industry A

Cooling Fix Load Consumption	Refrigeration Set Point		Refrigeration Consumption		Freezer Set Point		Freezer Consumption		Adjusted Equivalent Production		Number of linear segment		Production Related Consumption		Model Consumption		Real consumption		Difference	
	KWH	°C	KWH	2014	2015	°C	KWH	2014	2015	Unit	2014	2015	KWH	2014	2015	KWH	2014	2015	KWH	%
415 543	4,0	0	-18,0	0	6 250	1	1 880	1 379 784	1 492 800	113 016	7,6	1 880	1 383 907	1 492 800	108 893	7,3				
375 329	4,0	0	-18,0	0	7 349	1	2 140	1 290 614	1 291 200	586	0,0	2 140	1 300 999	1 291 200	-9 799	-0,8				
476 330	4,0	0	-18,0	0	7 155	1	2 094	1 476 223	1 464 000	-12 223	-0,8	2 094	1 424 079	1 464 000	39 921	2,7				
460 964	4,0	0	-18,0	0	5 911	1	1 799	1 419 049	1 435 200	16 151	1,1	1 799	1 415 650	1 435 200	19 550	1,4				
519 813	4,0	0	-18,0	0	5 585	1	1 722	1 469 522	1 536 000	66 478	4,3	1 722	1 437 038	1 536 000	98 962	6,4				
432 364	4,0	0	-18,0	0	6 387	1	1 912	1 396 691	1 411 200	14 509	1,0	1 912	1 418 498	1 411 200	-7 298	-0,5				
446 776	4,0	0	-18,0	0	7 408	1	2 154	1 438 930	1 497 600	58 670	3,9	2 154	1 385 286	1 497 600	112 314	7,5				
519 813	4,0	0	-18,0	0	9 207	1	2 580	1 472 389	1 507 200	34 811	2,3	2 580	1 349 951	1 507 200	157 249	10,4				
402 138	4,0	0	-18,0	0	10 448	1	2 874	1 373 401	1 502 400	128 999	8,6	2 874	1 406 793	1 502 400	95 607	6,4				
415 543	4,0	0	-18,0	0	8 011	1	2 297	1 426 749	1 497 600	70 851	4,7	2 297	1 365 851	1 497 600	131 749	8,8				
402 138	4,0	0	-18,0	0	6 048	1	1 832	1 302 999	1 248 000	-54 999	-4,4	1 832	1 258 461	1 248 000	-10 461	-0,8				
415 543	4,0	0	-18,0	0	10 146	1	2 803	1 442 552	1 421 867	-20 685	-1,5	2 803	1 410 136	1 421 867	11 731	0,8				
<b>5 282 294</b>		<b>0</b>		<b>0</b>	<b>89 905</b>	<b>0</b>	<b>26 087</b>	<b>16 888 904</b>	<b>17 305 066</b>	<b>416 164</b>		<b>26 087</b>	<b>16 556 649</b>	<b>17 305 066</b>	<b>748 418</b>					
2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015				

Mathematical model for electrical consumption (Section E - Page 3 of 3)

Demo - Industry A

Cooling Fix Load Consumption	Refrigeration Set Point		Refrigeration Consumption		Freezer Set Point		Freezer Consumption		Adjusted Equivalent Production		Number of linear segment		Production Related Consumption		Model Consumption		Real consumption		Difference	
	KWH	°C	KWH	KWH	°C	KWH	KWH	Unit	2016	2017	2016	2017	KWH	2016	2017	KWH	2016	2017	KWH	%
2016	2016	2016	2016	2016	2016	2016	2016	2016	2016	2016	2016	2016	2016	2016	2016	2016	2016	2016	2016	2016
415 543	4,0	0	0	0	-18,0	0	6 250	1	1 880	1 378 764	1 492 800	114 036	7,6							
388 734	4,0	0	0	0	-18,0	0	7 349	1	2 140	1 323 205	1 291 200	-32 005	-2,5							
415 543	4,0	0	0	0	-18,0	0	7 155	1	2 094	1 425 813	1 464 000	38 187	2,6							
402 138	4,0	0	0	0	-18,0	0	5 911	1	1 799	1 362 864	1 435 200	72 336	5,0							
476 330	4,0	0	0	0	-18,0	0	5 585	1	1 722	1 396 670	1 536 000	139 330	9,1							
503 045	4,0	0	0	0	-18,0	0	6 387	1	1 912	1 420 157	1 411 200	-8 957	-0,6							
446 776	4,0	0	0	0	-18,0	0	7 408	1	2 154	1 386 103	1 497 600	111 497	7,4							
446 776	4,0	0	0	0	-18,0	0	9 207	1	2 580	1 353 013	1 507 200	154 187	10,2							
503 045	4,0	0	0	0	-18,0	0	10 448	1	2 874	1 406 075	1 502 400	96 325	6,4							
476 330	4,0	0	0	0	-18,0	0	8 011	1	2 297	1 423 717	1 497 600	73 883	4,9							
402 138	4,0	0	0	0	-18,0	0	6 048	1	1 832	1 258 883	1 248 000	-10 883	-0,9							
415 543	4,0	0	0	0	-18,0	0	10 146	1	2 803	1 419 213	1 421 867	2 654	0,2							
<b>5 291 941</b>		<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>89 905</b>		<b>26 087</b>	<b>16 554 477</b>	<b>17 305 066</b>	<b>750 590</b>								
<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>							
415 543	4,0	0	0	0	-18,0	0	6 250	1	1 880	1 376 087	1 492 800	116 713	7,8							
375 329	4,0	0	0	0	-18,0	0	7 349	1	2 140	1 294 077	1 291 200	-2 877	-0,2							
415 543	4,0	0	0	0	-18,0	0	7 155	1	2 094	1 433 311	1 464 000	30 689	2,1							
402 138	4,0	0	0	0	-18,0	0	5 911	1	1 799	1 356 882	1 435 200	78 318	5,5							
476 330	4,0	0	0	0	-18,0	0	5 585	1	1 722	1 399 237	1 536 000	136 763	8,9							
503 045	4,0	0	0	0	-18,0	0	6 387	1	1 912	1 419 035	1 411 200	-7 835	-0,6							
446 776	4,0	0	0	0	-18,0	0	7 408	1	2 154	1 383 768	1 497 600	113 832	7,6							
519 813	4,0	0	0	0	-18,0	0	9 207	1	2 580	1 420 436	1 507 200	86 764	5,8							
503 045	4,0	0	0	0	-18,0	0	10 448	1	2 874	1 406 034	1 502 400	96 366	6,4							
476 330	4,0	0	0	0	-18,0	0	8 011	1	2 297	1 417 888	1 497 600	79 712	5,3							
402 138	4,0	0	0	0	-18,0	0	6 048	1	1 832	1 262 527	1 248 000	-14 527	-1,2							
<b>4 936 030</b>		<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>79 759</b>		<b>23 284</b>	<b>15 169 282</b>	<b>15 883 200</b>	<b>713 918</b>								











