Innovation Energie Développement (IED)

CAP-REDEO project

Capacity & institutional strengthening for rural electrification and development - Decentralised Energy Option (CAP-REDEO)

LOAD FORECAST REPORT

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Load Forecast Report

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ABBREVIATION/ACRONYM

Cambodia

CDEC	Local Cambodian engineering firm
DIME	Department of Industry, Mines and Energy (Province)
EAC	Electricity Authority of Cambodia
EDC	Electricité du Cambodge
HC	Health Center
HP	Health Post
JICA	Japan International Cooperation Agency
MIME	Ministry of Industry, Mines and Energy
MoEYS	Ministry of Education, Youth and Sport
MoH	Ministry of Health
MoP	Ministry of Planning, National Institute of Statistic
MPWT	Ministry of Public Works and Transport
OD	Operational district (administration office)
PPP	Public Private Partnership
REF	Rural Electrification Fund
RH	Referral Hospital
UoA	University of Agriculture, Department of Geographical System

Lao PDR

DOE	Department of Energy/MEM
EDL	Electricité du Laos
MEM	Ministry of Energy and Mines
NUOL	National University of Laos
PDEM	Provincial Department of Energy and Mines
NGD	National Geographical Department, Office of Prime Minister
MoE	Ministry of Education
MoH	Ministry of Health
MIC	Ministry of Industry and Commerce

Commonly used

DP	Development Pole
IPD	Indicator for Potential Development
HDI	Human Development Index
GIS	Geographical Information System
GPS	Global Position System

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Introduction

This report focuses on the load forecast part of the rural electrification planning process undergone by the CAP REDEO project, on the Cambodian province “Kampong Cham” and the Lao province “Khammuon”, using the GIS-based aid decision tool GEOSIM.

Main results at the provincial level for both countries are summarized here, so that relevant stakeholders can approve them or make comments if needed. This report also provides a short explanation of the method used.

The overall philosophy and outputs of the model are explained in the first chapter. Then for both provinces, data collected from bibliographical research and surveys are presented as well as major assumptions and results of the load forecast.

1 The GEOSIM load forecast model

1.1 Overview of GEOSIM

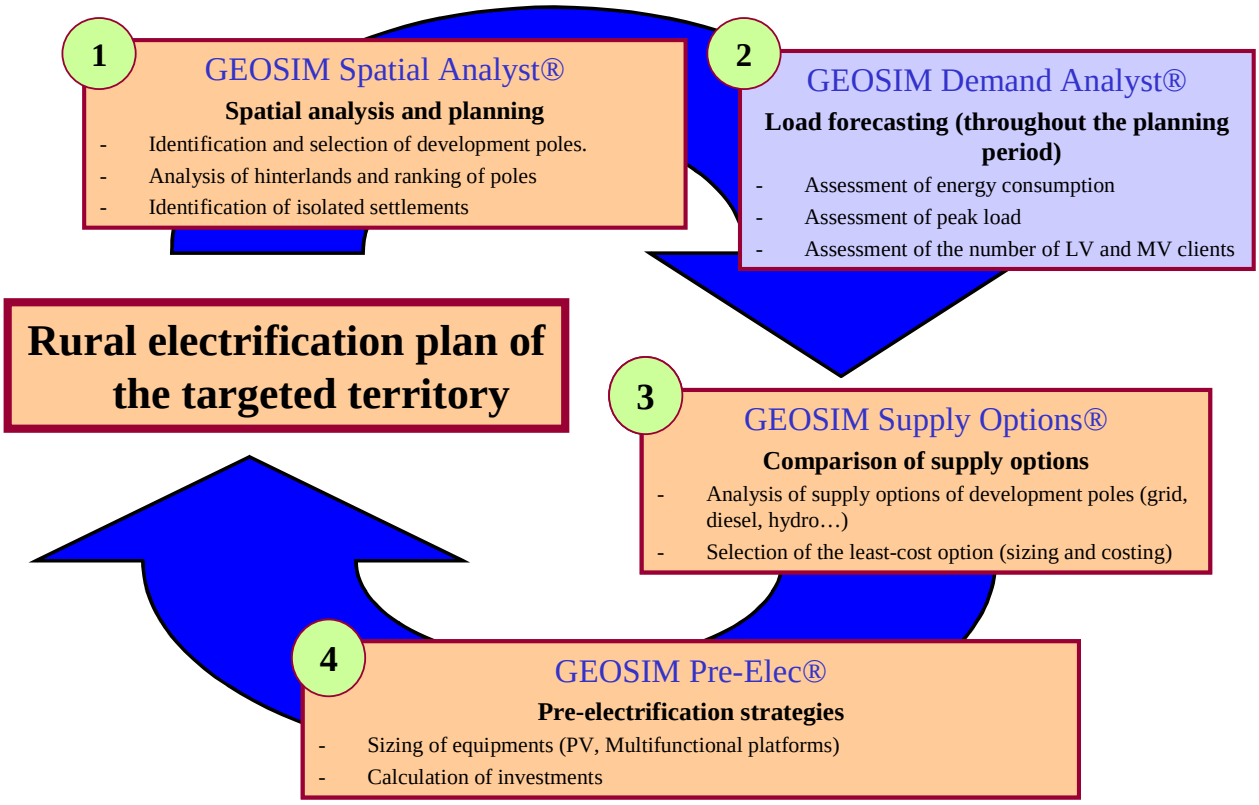

Figure 1 GEOSIM planning process

Results of the load forecast module of GEOSIM (GEOSIM Demand Analyst®) are critical in the planning process, since they provide least-cost algorithms (GEOSIM Supply Options®, cf. Figure 1) with data on demand (peak, consumption, number of clients…) for each village of the study area.

While GEOSIM Demand Analyst® does not calculate itself willingness to pay for electricity, this is another critical output of the baseline survey analysis, which is supposed to be estimated from survey data (cf. 1.3). Indeed, willingness to pay is used in economic and financial analyses.

1.2 Village scale and « bottom-up »

There are two main categories of load forecasting models:

- Top-down forecasts are based on macro-level (regional or national scale) econometric data. They assess statistical dependencies between indicators to better anticipate the trend of demand. This approach is usually used by utilities for large scale power generation & grid extension development plans.
- The approach used here belongs to the “bottom-up” type: demand is calculated from the number and average consumption profiles of each type of end-user (households, schools, shops, other productive activities etc.), determined by socio-economic surveys. This method is best suited for small-scale projects.

We will compare our bottom-up results to figures of top-down forecasts to check the orders of magnitude, but it is normal to have discrepancies between the two approaches. Top-down forecasts strive to be accurate at the macro-level, while bottom-up forecasts focus on the village level.

1.3 Willingness to pay and market segmentation

The distribution of domestic users among different classes, called market segmentation, is an important step of load forecasting. While most approaches to market segmentation are based on income only, we recommend to define classes of clients according to two more reliable criteria if possible :

- Level of service expected
- Willingness to pay

Level of service expected is usually defined simply by intended installed capacity.

Willingness to pay is a very delicate indicator to estimate. A good method is to calculate the substitutable energy bill of would-be electrified households, using substitution ratios. But this method works only with large and well sampled surveys[1].

1.4 Regions

Consumption of electricity can vary significantly from one region to another, depending on living standards, local habits, agri-ecological zones etc. Thus, GEOSIM Demand Analyst® lets the user define some parameters specifically for different regions.

This feature has not been used in this study (the whole study area has been treated as the same region), but may be used later on.

1.5 Special demands

In our model, the load forecast of a village is mainly determined by its population and average consumption profiles for different populations. This assumption is usually valid, unless the village features a very large end-user which creates an unusually high demand.

These end-users, usually industries and agri-businesses, are called *"special demands"*. There are two types of special demands:

- Small special demands ("particular demands") : these are located inside settlements. Their power consumption is of the same order of magnitude than the rest of the settlement. Typically these small special demands would be SMEs.
- Large special demands ("specific demands") : these can be located inside or outside settlements. Their power consumption significantly outweighs the consumption of a single settlement and can be of the same order of magnitude than a small cluster of settlements, thus justifying electrification projects dedicated to them and possibly neighbouring villages. Typically these large special demands would be large agribusinesses, factories or mines.

1.6 Outputs

For each village of the study area, each year of the planning period and each scenario (24h, 10h and 5h supply), the following outputs are created by GEOSIM Demand Analyst®:

- Number of low and medium voltage clients
- Peak demand (in kW)
- Yearly consumption (in MWh)
- Load duration curves

In addition, typical daily load curves can be produced for a specific village, in order to test the validity of input data and hypotheses.

[1] In this study, the surveys were not sufficient to have sound estimates. Nevertheless, other project references provided averages.

2 Kampong Cham

2.1 Available data

Load forecast parameters have been designed with the help of previous studies, a field socio-economic survey and the GIS multisectoral database created by the CAP REDEO project.

2.1.1 Previous studies

The main sources of data from previous studies are the following:

- "The master plan study on rural electrification by renewable energy in the kingdom of Cambodia", JICA. 2006 [1]
- "Rural Electrification in Cambodia", presentation at CAP REDEO multistakeholder meeting, Heng KunLeang (MIME). 2007 [2]
- "Energy and Electricity Outlook of Cambodia", H.E. Tun Lean (MIME). 2001 [3]
- "Annual Report", EDC. 2002 [4]
- "RE Strategy & Programme", Meritec & KCEC. 2001 [5]
- "Review and assessment of water resources for hydropower and identification of priority projects", CPEC & ACT. 1995 [6]

The first study is a comprehensive rural electrification master plan at the national level. It features recent aggregated consumption data from EDC and independent producers (REEs), as well as estimates of demand for off-grid areas. Figures are usually given at the national level, but data from a pre-feasibility study in Kratie province (neighbouring Kampong Cham) can also be used.

Mr. Heng KunLeang (MIME) presented results of a recent survey (2007) during the last multistakeholder meeting in Phnom Penh.

References [3] and [4] provide aggregated figures of consumption at the national level in 2001 and 2002.

Finally, references [5] and [6] do not show detailed load forecasts but some assumptions can be of interest in our calculations.

2.1.2 Socio-economic survey

In addition to the data from previous studies mentioned above, we conducted a field survey in a few villages of Kampong Cham province. In total 6 villages have been visited:

- Roang Leo in Kampong Siem district
- Spean Thmei in Kampong Siem district
- Svay Tbong in Srei Santhor district
- Ruessei Srok in Srei Santhor district
- Lpeak in Kampong Siem district
- Prey Totueng in Prey Chhor district (electrified)

Both non electrified and one electrified villages have been surveyed, to allow comparison of results. The first two villages have only been surveyed to test the questionnaires. After a few tests, questionnaires have been changed and used in the other villages.

Village selection was made among Development Poles in the province (cf. spatial analysis report). In consultation with PDIME of Kampong Cham province (Mr. Pou Run), 4 villages (3 non electrified and 1 electrified) spread over 3 districts have been selected. The electrified village is located along the national road NR6 from Phnom Penh to Kampong town, and non electrified villages are located somewhat far from the asphalt road – 1 is located around 20 km from the Kampong Cham town, and 2 others are located along the Mekong River in a frequently flooded area. The time taken to reach these non-electrified villages is about 3

hours from the asphalt road due to the fact that the access roads are laterite roads (local roads) being in very bad condition.

In each village, the village representative has been interviewed to provide a broad picture of the village (cf. questionnaire in ANNEX 7).

Then around 2 different businesses or social services have been interviewed in each village to estimate their demand for electricity (cf. questionnaire in ANNEX 8). In total 10 businesses and services have been interviewed.

Between 15 and 20 households have also been interviewed in each village to better understand their need for electricity and other forms of energy (cf. questionnaire in ANNEX 9). In total 67 households have been interviewed.

Finally, 4 sites with significant potential for biomass production (rice mills and saw mills) have been interviewed. The results will not be used directly by the load forecast model but will allow us to estimate the potential of similar activities for biomass residue production and thus electricity generation, when we move to the next steps of assessing the production options for rural electrification planning

A detailed survey report from CDEC is available in ANNEX 5.

2.2 Load forecast parameters

In this chapter, main assumptions relating to the load forecast will be listed along with their references, so that relevant stakeholders can validate them or make suggestions of improvements. Screenshots of all parameters can be found in **Error! Reference source not found.**.

2.2.1 Technical losses

Technical losses[2] are set equal to 20%, as suggested by EAC at the national stakeholder meeting in Phnom Penh [9].

2.2.2 Socio-economic data

- Villages are considered not scattered (the coefficient of not scattered households is equal to 100%), i.e. all households of a village are eligible for connection if the village is electrified.
- The population growth rate is 2.5% per year [1]
- On average there are 5.7 people per household according to the GIS database [8] (5.0 according to the survey [7])

2.2.3 Market segmentation (household classes)

Relative weights of household classes have been taken as 60% for the lower class, 30% for the middle class and 10% for the higher class in the first year of the planning period, as suggested during the stakeholder meeting [9].

[2] Taking into account transmission and distribution losses.

	Class 1	Class 2	Class 3
Year 1	60%	30%	10%
Year 20	50%	35%	15%

Figure 2 Relative weight of classes

2.2.4 Domestic demand

Ownership of appliances has been calculated from the survey [7] and completed with data from the pre-feasibility study in [1].

Appliance	Class 1	Class 2	Class 3
Lighting	1.44	3.73	3.90
TV & Video-recorder	0.95	2.11	2.19
Radio-cassette	0.50	1.00	1.00
Rice cooker	0.06	0.12	0.12
Iron	0.05	0.20	0.45
Fan	0.21	0.86	1.73
Refrigerator	0.03	0.10	0.24

Table 1 Ownership of appliances (average number per household)

Consumption load curves of appliances have been designed from survey [7] and calibrated to match the figures of average consumption per household taken from [1] and [5]. Nominal power ratings[3] are indicated below:

Appliance	Power rating (W)
Lighting	16[4]
TV & Video-recorder	100
Radio-cassette	20
Rice cooker	300
Iron	800
Fan	100
Refrigerator	150

Resulting demand of each household class for the 24h supply scenario is presented in the following table:

	Class 1	Class 2	Class 3
Consumption (kWh/month)	13	43	68
Peak demand (W)	176	288	427

Table 2 Specific demand of one household for each class, not including distribution losses

2.2.5 Willingness to pay of households

Survey data wasn't consistent nor complete enough to provide an accurate estimate of willingness to pay and level of service expected. In fact, willingness to pay is usually measured by comparing expenditure in each form of energy between households in

[3] Please note that load curves of a given appliance do not necessarily reach the nominal power rating since these curves show the average power demand of an appliance and it often happens that the appliance is used only in a fraction of households at a given time of the day.
[4] This is the average power rating in the survey [14].

electrified and non electrified villages. However, the following indicative figures could be compiled: when asked directly how much they would be willing to pay for electricity, households answered 23600 Riels/month (6.12 US$) on average, which is higher than the figures provided by the JICA team [1] (between 2 and 4 US$). Surveyed electrified households spend even more (72500 Riels/month on average) but again, this village is not necessarily representative of remote areas. Therefore, 5 US$ per month appears to be a rather conservative yet realistic estimate of the willingness to pay.

2.2.6 Public services

- Number of health centres have been defined the GIS multisector database [8]. According to discussions at the national stakeholder meeting [9], schools should not be considered as potential clients for an electricity service.
- Number of clients for water pumping, public lighting and meeting halls has been taken equal to 1 for all villages. However, their specific consumption is proportional to the population of the village.

Population range[5]	Health centres & health posts	Water pumping	Public lighting	Meeting hall/Pagoda
0-700	0.0	1.0	1.0	1.0
700-1400	0.0	1.0	1.0	1.0
1400-2100	0.1	1.0	1.0	1.0
>2100	0.3	1.0	1.0	1.0

Table 3 Average number of connections for public services for different population ranges

	Health centres & health posts	Water pumping	Public lighting	Meeting hall/Pagoda
Monthly consumption	72 kWh/connection	1200 kWh/1000p	1080 kWh/1000p	72 kWh/1000p
Peak demand	150 W/connection	4000 W/1000p	4000 W/1000p	400 W/1000p

Table 4 Specific demand of public services, not including distribution losses

2.2.7 Productive uses and small businesses

- Number of connections for different population ranges have been defined from survey [7] (shops & restaurants) and the GIS multisector database [8] for small industries[6].
- Rice mills above 20HP have been treated as particular demands (cf. chapter 1.5). Other medium to large industries exist in the GIS database [8], but reliable data is lacking about their demand for electricity and thus are not included in the forecast.
- Consumption load curves of infrastructures have been designed from survey [7] and GIS database [8] (for peak power of small industries, which is around 10kW), as well as data from Khammuon (cf. 2.6) because detailed good quality data on consumption of infrastructures and services was lacking.

Population range	Small industry (small mills, carpentry, metal works)	Misc. shops and tourism activities (hotels, restaurants)
0-700	0.9	1.0
700-1400	1.5	3.0
1400-2100	2.5	5.0
>2100	2.8	10.0

Table 5 Average number of connections for productive uses for different population ranges

[5] Population thresholds have been defined according to the ones chosen to calculate IPD (cf. spatial analysis report), i.e. a similar number of villages fall in each population range.
[6] Only small industries with engines below 20HP (15kW) have been selected. Bigger industries will be considered “particular” or “specific” demands.

	Small industry (small mills, carpentry, metal works)	Misc. shops and tourism activities (hotels, restaurants)	Rice mill above 20HP
Consumption (kWh/month)	540	146	3240
Peak demand (W)	2 000	300	12 000[7]

Table 6 Specific demand of productive uses, not including distribution losses

2.2.8 Growth hypotheses

Main assumptions for connection rates and consumption growth rate have been discussed during the stakeholder meeting in Phnom Penh [9]. They are summarized in the following table:

Years	1	1-10	10	10-20	20
Connection rates					
Households	35%		98%		98%
Infrastructures and services	80%		100%		100%
Consumption growth rates					
Households		5.00%		0.00%	
Infrastructures and services		5.00%		5.00%	

Table 7 Growth hypotheses

2.3 Load forecast results

2.3.1 Example for a particular village

The results of the load forecast for a typical 500 inhabitants village are presented in detail below. Only results of the 24h supply scenario are shown.

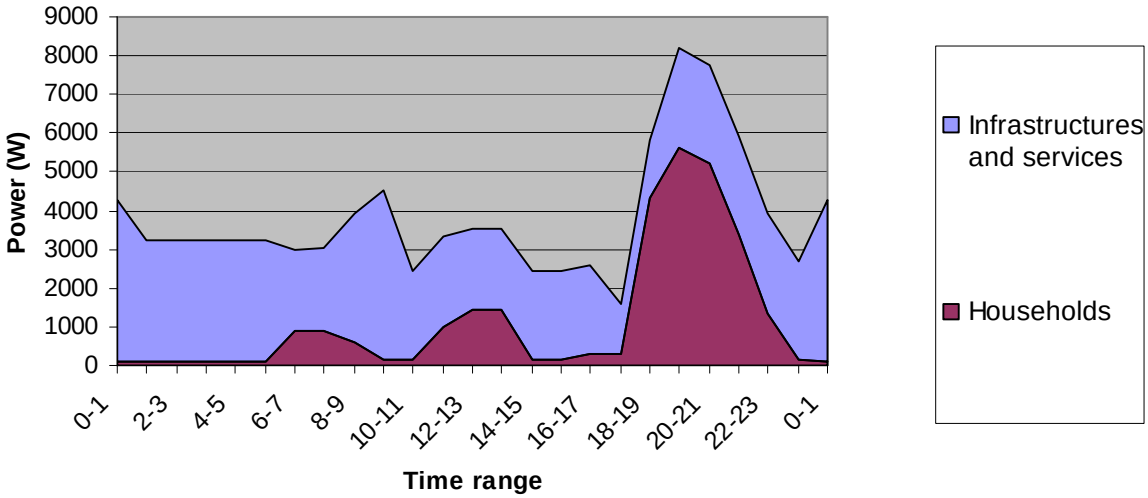

Figure 3 Average daily load curve in W for the first year (without technical losses)

[7] Peak demand of rice mills above 20HP is actually below 20HP (15kVA) because it is assumed that not all rice mills would run at the same time.

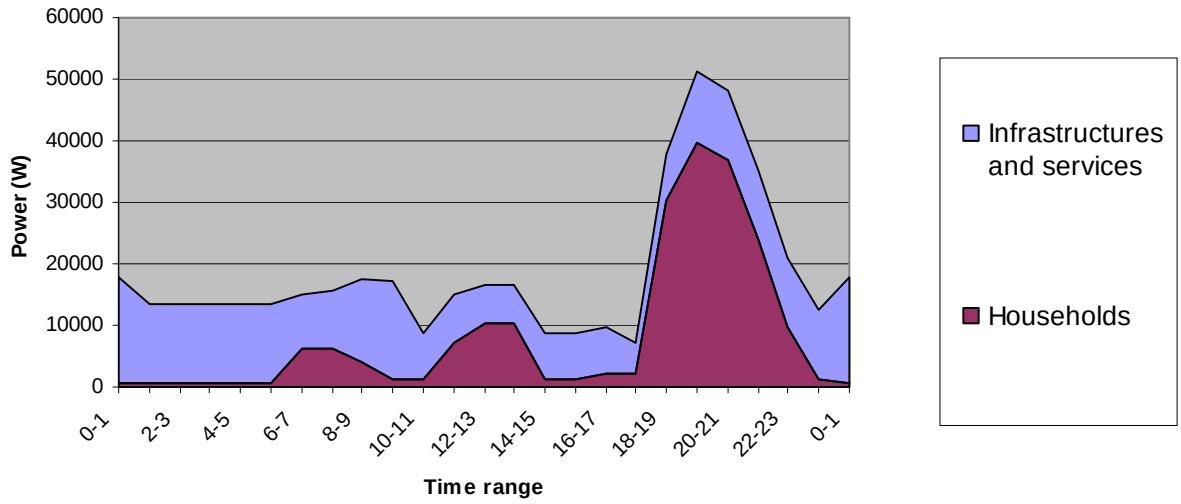

Figure 4 Average daily load curve in W for the20th year (without technical losses)

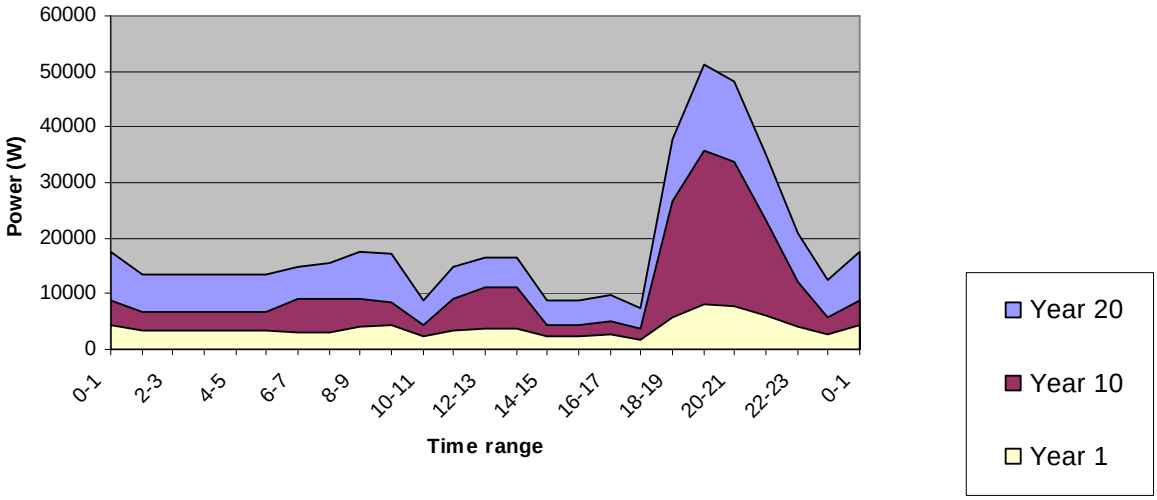

Figure 5 Average daily load curves for the first, 10th and 20th year (without technical losses)

Peak demand occurs roughly between 8pm and 9pm. It is mainly a consequence of household demand, while daytime demand is mostly non residential demand. A slight increase of the domestic share can be noticed between the first year and the last year of the planning period.

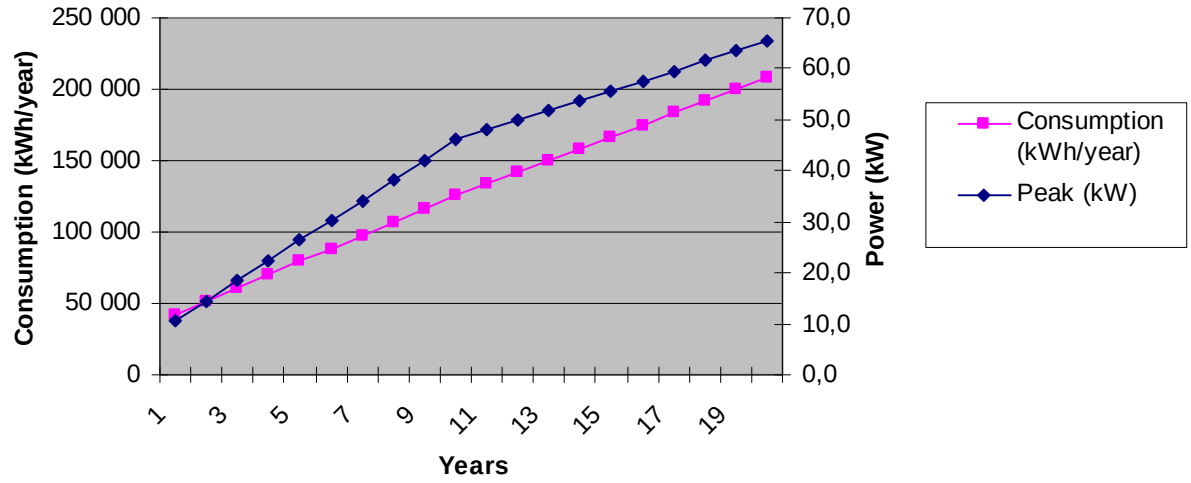

Figure 6 Evolution of yearly consumption and peak demand during the planning period (inc. technical losses)

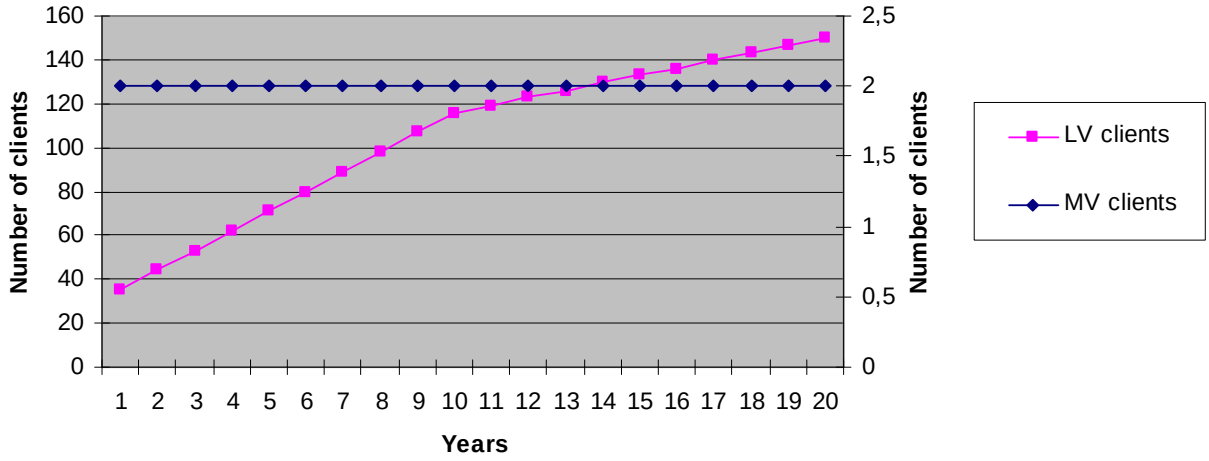

Figure 7 Evolution of LV and MV clients during the planning period (inc. technical losses)

Year	LV clients	MV clients	Yearly consumption (kWh)	Peak demand (kW)
1	35	2	42 481	10.5
2	44	2	51 684	14.5
3	53	2	60 887	18.4
4	62	2	70 090	22.4
5	71	2	79 292	26.3
6	80	2	88 495	30.3
7	89	2	97 698	34.2
8	98	2	106 901	38.2
9	107	2	116 104	42.1
10	116	2	125 306	46.1
11	119	2	133 580	48.0
12	123	2	141 853	49.9
13	126	2	150 127	51.9

Year	LV clients	MV clients	Yearly consumption (kWh)	Peak demand (kW)
14	130	2	158 400	53.8
15	133	2	166 674	55.7
16	136	2	174 947	57.6
17	140	2	183 220	59.6
18	143	2	191 494	61.5
19	147	2	199 767	63.4
20	150	2	208 041	65.4

Table 8 Summary of results (inc. technical losses)

2.3.2 GEOSIM results

The results of the load forecast for all villages in Kampong Cham province will now be presented. Figure 8 below shows the yearly consumption of each village for the first year of the planning period (the size of the dot representing villages is proportional to their consumption) while Figure 9 shows results at the district level.

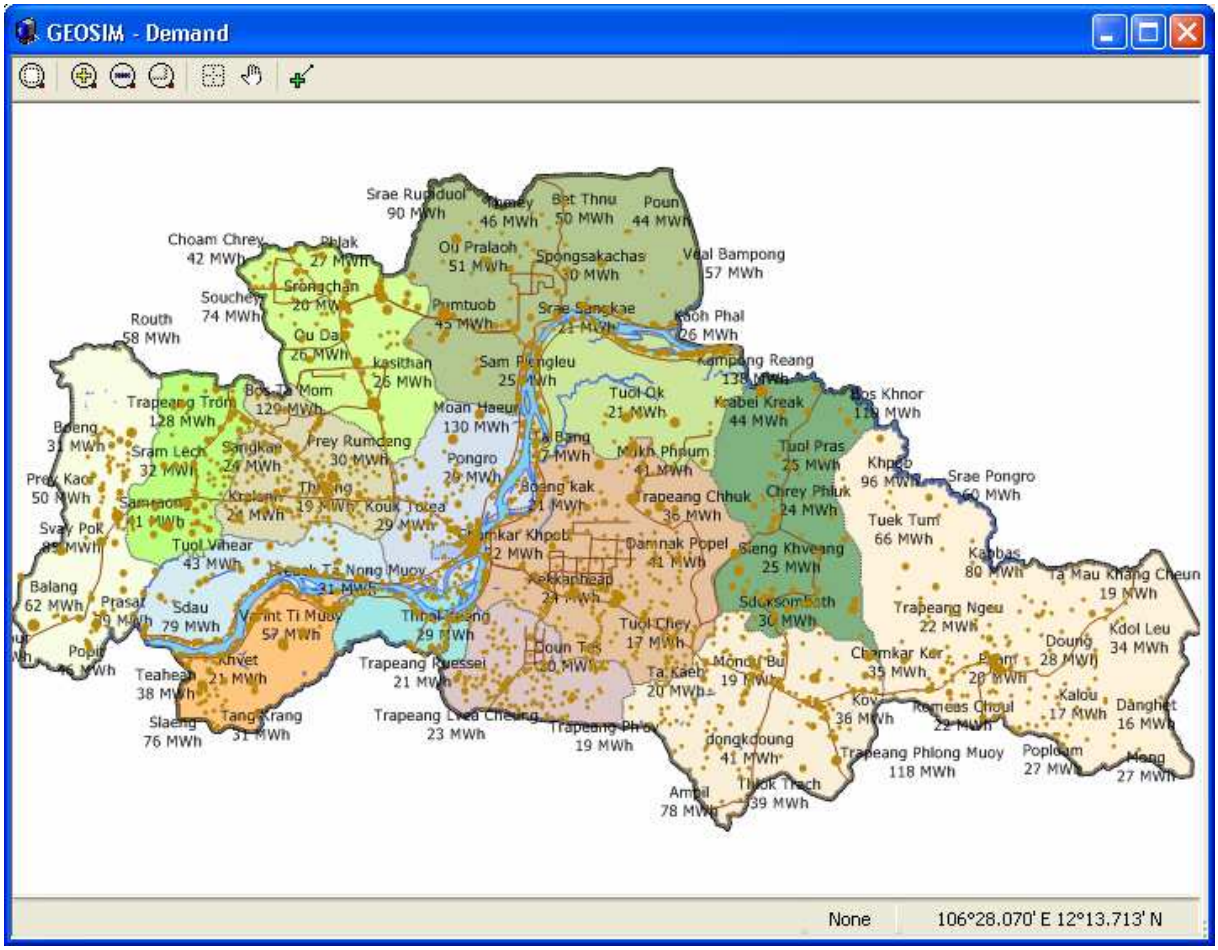

Figure 8 Results per village

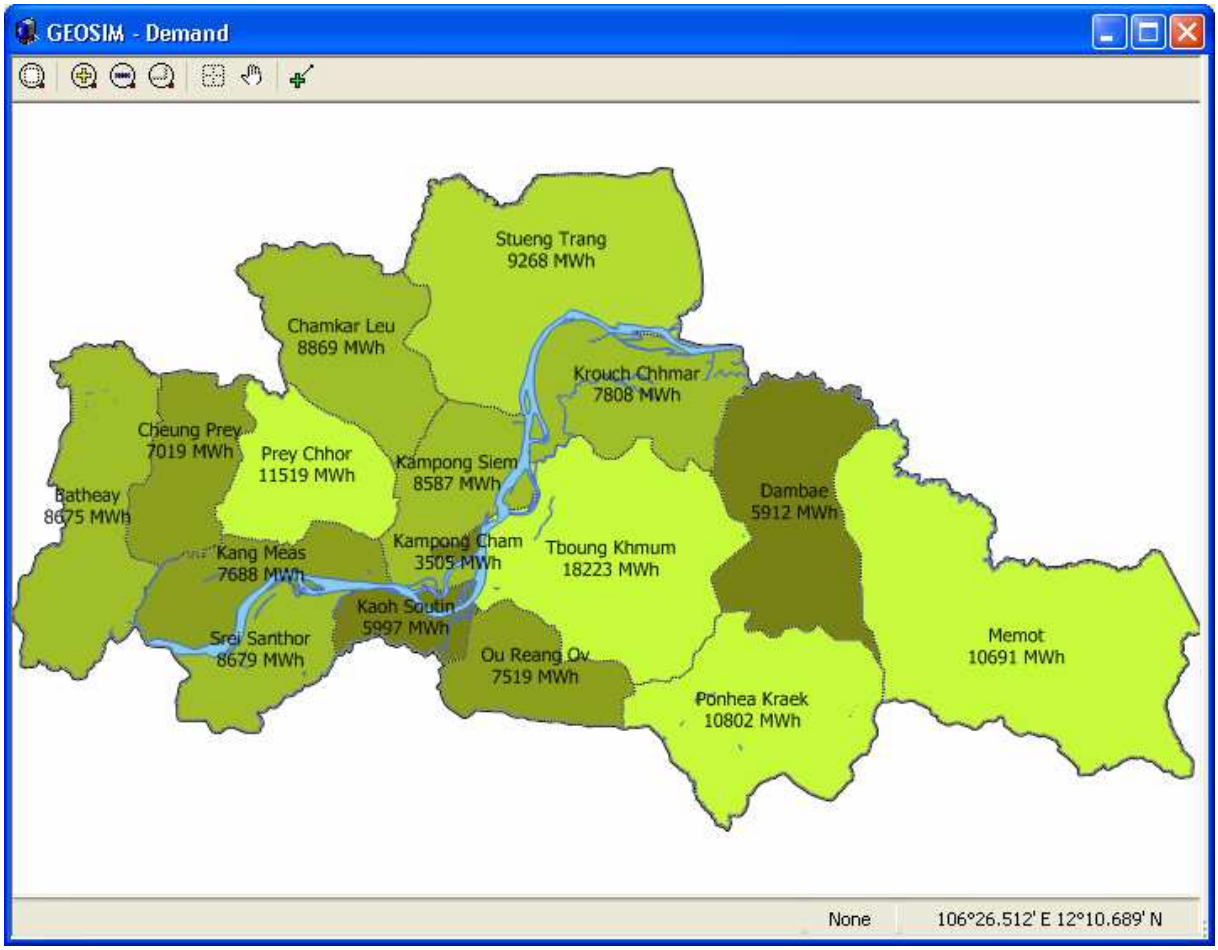

Figure 9 Results per district

The average yearly consumption per capita is around 80kWh for 2008. This figure is consistent with the figure of 55kWh per capita in 2001 [3], which would be around 94kWh in 2008 assuming an overall consumption growth rate of 8% (taken from [2]).

However, according to the GIS database, consumption per capita ranges from 31kWh in Srei Santhor district to 5918 kWh in Ponhea Kraek district, probably due to very large local demands. These discrepancies have not been taken into account in our model. For example in Figure 9, forecasted demand seems lower in Kampong Cham district. This is because we did not treat this district seperatly from the others, i.e. the same parameters have been applied to all districts. Since these parameters are mostly valid for isolated rural areas, the forecasted demand of more urbanized districts is biased. Besides, not all specific demands (large industries) have been included in the forecast yet.

The load forecast model used here can take into account different population growth rates, number of people per households, relative weights of classes and number of infrastructures per village for different areas but data was lacking on a district per district basis.

District	Population	Consumption year 1 (MWh)	Consumption year 10 (MWh)	Consumption year 20 (MWh)
Batheay	104 858	8 675	21 424	33 098
Chamkar Leu	114 783	8 869	21 670	33 332
Cheung Prey	88 131	7 019	17 088	26 361
Dambae	72 668	5 912	14 375	22 178
Kampong Cham	44 088	3 505	8 607	13 232
Kampong Siem	106 908	8 587	20 786	32 404
Kang Meas	103 217	7 688	18 863	29 456

District	Population	Consumption year 1 (MWh)	Consumption year 10 (MWh)	Consumption year 20 (MWh)
Kaoh Soutin	73 156	5 997	14 591	22 854
Krouch Chhmar	105 362	7 808	19 264	29 594
Memot	131 001	10 691	25 690	39 900
Ou Reang Ov	89 738	7 519	17 899	27 625
Ponhea Kraek	132 369	10 802	26 239	40 821
Prey Chhor	140 254	11 519	27 756	43 184
Srei Santhor	108 156	8 679	21 264	32 845
Stueng Trang	114 786	9 268	22 741	35 090
Tboung Khmum	219 465	18 223	44 181	68 599
Total	1 748 940	140 761	342 438	530 573

Figure 10 Consolidated results per district

The list of results for all villages is available in ANNEX 6. Yearly consumption, peak demand and domestic share are given for the first year, the 10th and the 20th year.

2.4 Sensitivity analysis

For the purpose of the sensitivity analysis, a high demand scenario has been discussed with stakeholders at the national meeting in Phnom Penh [9]. The main hypothesis is a decrease in the tariff of electricity. We assume that the elasticity of consumption for different classes of households is not the same: poor households will consume more if tariff is higher, while the consumption of rich households will almost remain the same regardless of tariff. Therefore, consumption of different households classes have been multiplied by the following factors:

- 1.3 for the poor class
- 1.2 for the medium class
- 1.1 for the riche class

Schools have been judged suitable for electrification in this scenario, with a consumption of 50kWh per month, a peak demand of 150W and the following average number of schools per village:

Population range[8]	Number of schools
0-700	0.3
700-1400	0.6
1400-2100	0.8
>2100	1.1

Table 9 Number of schools

Finally the annual consumption growth rate of both domestic and non domestic clients is taken equal to 7%, instead of 5%.

The results of the high scenario for the whole province will be studied in the final rural electrification plan of KampongCham province. However, they won't be presented in full detail in this report. We will only show the results for a typical 500 inhabitants village, to allow comparison between the base scenario and the high scenario.

[8] Population thresholds have been defined according to the ones chosen to calculate IPD (cf. spatial analysis report), i.e. a similar number of villages fall in each population range.

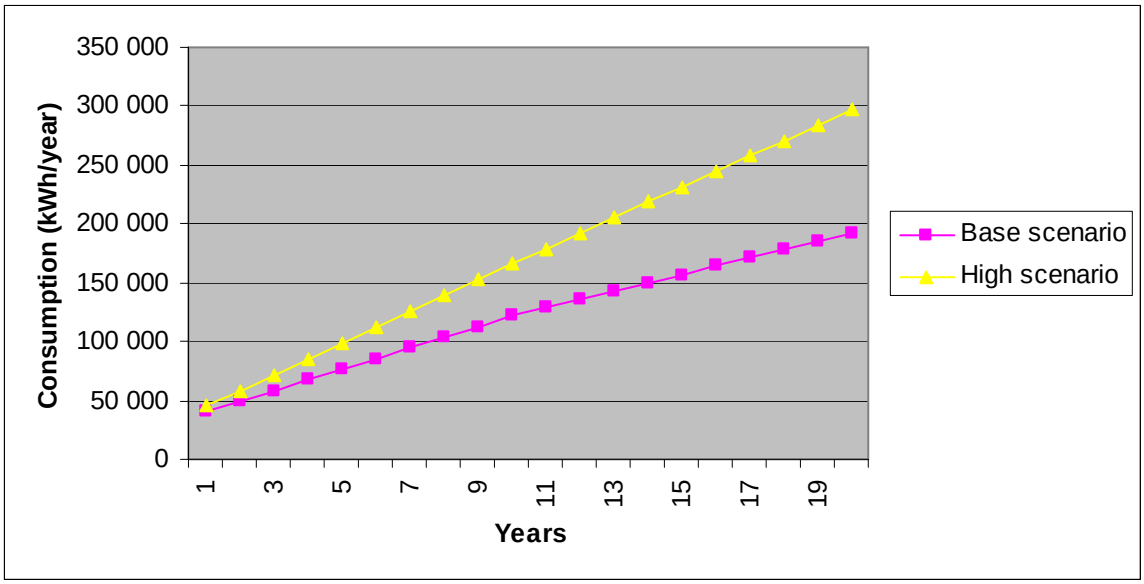

Figure 11 Comparison between high and base scenarios for a 500 inhabitants village

Not surprisingly, the difference between the two scenarios is rather significant at the end of the planning period. In the first year, the high scenario is 12% above the base scenario, while in the last year the difference reaches 55%.

Khammuon

2.5 Available data

Load forecast parameters have been designed with the help of previous studies, a field socio-economic survey and the GIS multisectoral database created by the CAP REDEO project.

2.5.1 Previous studies

The main sources of data from previous studies are the following:

- "Evaluation of Rural Electrification, Socio-Economic Survey, Establishment of Database for Rural Electrification Planning in Lao PDR", International Development Association. 2004 [10]
- "The study on rural electrification project by renewable energy in the Lao PDR", JICA. 2001 [11]
- "Power Development Plan", Electricité du Laos. 2004 [12]
- "EDL Tariff study", Electrowatt-Ekono Ltd. & Fichtner. 2004 [13]

The first two studies are based on the bottom-up approach. The first one uses a method very similar to the one used by the GEOSIM model: detailed results from socio-economic surveys are collected to evaluate the demand for electricity of different household classes. However, households classes are determined only by income in this report, not willingness to pay and expected level of service. The area covered by this study is broader than Khammuon province, but the focus remains on southern provinces (areas targeted by the SPRE 2 project). Therefore it is assumed that data in this report iq still relevant for our study in Khammuon.

The JICA study is a bit less precise in the sense that input data doesn't come from field surveys but from broad assumptions on a typical 100 inhabitant village.

The last two reports feature aggregated (top-down) figures of electricity consumption for villages connected to EDL grid in Khammuon.

While the first two reports seem more adequate to find missing input data for the GEOSIM model, the top-down results are also of interest, since they give an order of magnitude for the demand of villages connected to the grid. Therefore, they can roughly validate or not the results of our forecast.

2.5.2 Socio-economic survey

In addition to the data from previous studies mentioned above, we conducted a field survey in a few villages of Khammuon province. In total 6 villages have been visited:

- Nonghoy in Hinboun district (electrified)
- Nanhi in Hinboun district
- Namdon in Hinboun district (electrified)
- Phonady in Mahaxai district
- Phonmouang in Mahaxai district
- Huayhoua in Hinboun district

A mix of electrified and not electrified villages have been surveyed, to allow comparison of results. The village selection has been suggested by local authorities of the province (head of PDEM). The first two villages have only been surveyed to test the questionnaires. After a few tests, questionnaires have been changed and used in the other villages.

In each village, the village representative has been interviewed to provide a broad picture of the village (cf. questionnaire in ANNEX 7).

Then around 3 different businesses or social services have been interviewed in each village to estimate their demand for electricity (cf. questionnaire in ANNEX 8). In total 13 businesses and services have been interviewed.

Between 15 and 20 households have also been interviewed in each village to better understand their need for electricity and other forms of energy (cf. questionnaire in ANNEX 9). In total 68 households have been interviewed.

Finally, 3 sites with significant potential for biomass production (1 saw mill and 2 rice mills) have been interviewed. The results will not be used directly by the load forecast model but will allow us to estimate the potential of similar activities for biomass residue production and thus electricity generation, in the next phases on planning

2.6 Load forecast parameters

In this chapter, main assumptions relating to the load forecast will be listed along with their references, so that relevant stakeholders can validate them or make suggestions of improvements. Screenshots of all parameters can be found in **Error! Reference source not found.**.

2.6.1 Technical losses

Technical losses[9] are set equal to 15%, as discussed during the national stakeholder meeting in Vientiane [16].

2.6.2 Socio-economic data

- Villages are considered not scattered (the coefficient of not scattered households is equal to 100%), i.e. all households of a village are eligible for connection if the village is electrified.
- The population growth rate is 2.2% per year [12]
- On average there are 6 people per household [10] (5.6 from survey [14], 5.6 from GIS database [15] and 6.4 in rural areas from [12])

2.6.3 Market segmentation (household classes)

Relative weights of household classes have been taken from [10] although these classes are defined by income.

	Class 1	Class 2	Class 3
Income boundaries ('000 Kips/month)	< 3053	3053-8107	> 8107

Table 10 Income boundaries

	Class 1	Class 2	Class 3
Year 1	32%	51%	17%
Year 20	33%	49%	17%

Figure 12 Relative weight of classes

2.6.4 Domestic demand

Ownership of appliances (% of households owning at least one appliance of a particular type) has been taken from [10], and average number of appliance of each type (how many appliances a household owns on average) has been taken from the survey [14]. The following table combines both results:

[9] Taking into account transmission and distribution losses.

Appliance	Class 1	Class 2	Class 3
Lighting	2.74	3.77	5.33
TV & Video-recorder	1.23	1.90	1.77
Radio-cassette	0.11	0.16	0.22
Rice cooker	0.15	0.29	0.40
Iron	0.07	0.19	0.36
Fan	0.70	0.69	1.14
Refrigerator	0.33	0.61	0.81

Table 11 Average number of appliances per households

Consumption load curves of appliances have been designed from survey [14] and calibrated to match the figures of average consumption per household taken from [10] (figures entered in the model are slightly higher to take into account the fact that data from [10] is outdated). Nominal power ratings[10] are indicated below:

Appliance	Power rating (W)
Lighting	40[11]
TV & Video-recorder	100
Radio-cassette	20
Rice cooker	300
Iron	800
Fan	100
Refrigerator	150

Table 12 Nominal power ratings

Resulting demand of each household class for the 24h supply scenario is presented in the following table:

	Class 1	Class 2	Class 3
Consumption (kWh/month)	43	79	117
Peak demand (W)	207	425	525

Table 13 Specific demand of one household for each class, not including distribution losses

2.6.5 Willingness to pay of households

Survey data wasn't consistent nor complete enough to provide an accurate estimate of willingness to pay and level of service expected. Nonetheless, as a rough estimate, when asked directly how much they would be willing to pay for electricity, households answered 26 170 Kips/month (2.9 $) on average, 22 240 Kips/month for the lower class and 30 000 Kips/month for the higher. According to [10], willingness to pay for the monthly bill is usually not an issue, connection costs being a more serious hindrance.

2.6.6 Public services

- Types of public services and their load curves have been estimated from survey [14] and [12].
- Number of schools and health centres have been defined the GIS multisector database [15].

[10] Please note that load curves of a given appliance do not necessarily reach the nominal power rating since these curves show the average power demand of an appliance and it often happens that the appliance is used only in a fraction of households at a given time of the day.

[11] This is the average power rating in the survey [14]. Of course, higher efficiency bulbs would significantly reduce the residential demand for lighting.

- Number of clients for water pumping, public lighting and meeting halls has been taken equal to 1 for all villages. However, their specific consumption is proportional to the population of the village.

Population range[12]	Schools	Health centres & health posts	Water pumping	Public lighting	Meeting hall/Pagoda
0-200	0.5	0.0	1.0	1.0	1.0
200-350	0.7	0.1	1.0	1.0	1.0
350-600	0.8	0.5	1.0	1.0	1.0
>600	1.1	0.8	1.0	1.0	1.0

Table 14 Average number of connections for public services for different population ranges

	Schools	Health centres & health posts	Water pumping	Public lighting	Meeting hall/Pagoda
Monthly consumption	50 kWh/connection	72 kWh/connection	1200 kWh/1000p	1080 kWh/1000p	288 kWh/1000p
Peak demand	150 W/connection	150 W/connection	4000 W/1000p	4000 W/1000p	1600 W/1000p

Table 15 Specific demand of public services, not including distribution losses

2.6.7 Productive uses and small businesses

- Number of connections for different population ranges have been defined from survey [14] (shops & restaurants) and the GIS multisector database [15] for small industries.
- Consumption load curves of have been designed from survey [14] and [12] (for estimates of peak power).

Population range	Small industry (small mills, carpentry, metal works)	Misc. shops and tourism activities (hotels, restaurants)
0-200	0.8	1.2
200-350	2.0	3.4
350-600	2.8	5.8
>600	5.9	12.2

Table 16 Average number of connections for productive uses for different population ranges

	Small industry (small mills, carpentry, metal works)	Misc. shops and tourism activities (hotels, restaurants)
Consumption (kWh/month)	540	83
Peak demand (W)	2 000	150

Table 17 Specific demand of productive uses, not including distribution losses

2.6.8 Growth hypotheses

Main assumptions for connection rates and consumption growth rate dhave been discussed during the stakeholder meeting in Vientiane. Please bear in mind that connection rate hypotheses are rather optimistic since connection costs are usually too high to achieve such high connection rates, unless generous subsidies are given. Connection rate for households is currently around 60%[13] according to the GIS database (EDL data) [15].

[12] Population thresholds have been defined according to the ones chosen to calculate IPD (cf. spatial analysis report), i.e. a similar number of villages fall in each population range.

[13] EDL reports mention a total connection rate for households, including households living in not electrified villages. Our load forecast model uses a slightly different figure: it is the average percentage of electrified households in electrified villages.

Growth hypotheses are summarized in the following table:

Years	1	1-5	5	5-20	20
Connection rates					
Households	60%		90%		90%
Infrastructures and services	80%		100%		100%
Consumption growth rates					
Households		4.00%		1.00%	
Infrastructures and services		4.00%		1.00%	

Table 18 Growth hypotheses

2.7 Load forecast results

2.7.1 Example for a particular village

The results of the load forecast for a typical 500 inhabitants village are presented in detail below. Only results of the 24h supply scenario are shown.

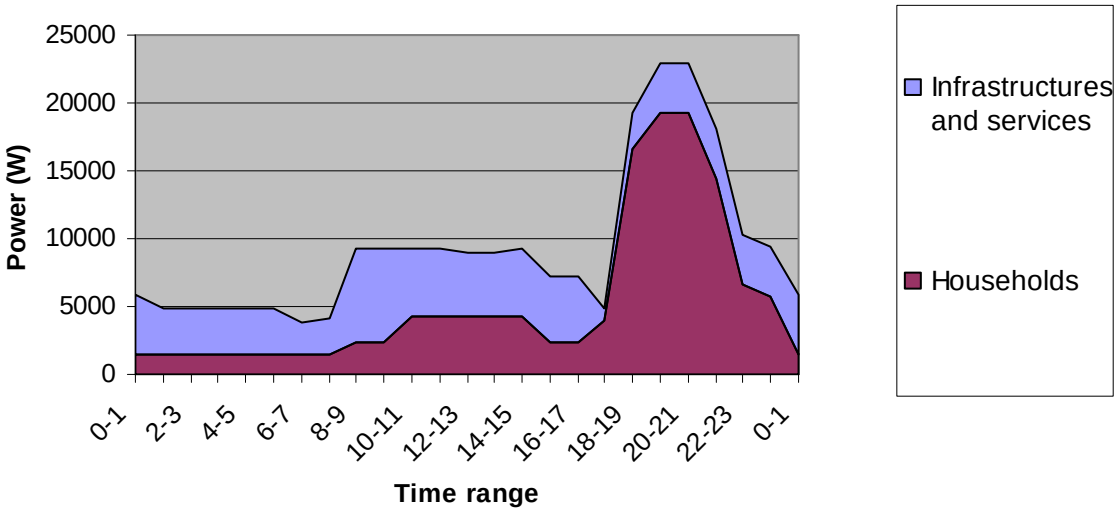

Figure 13 Average daily load curve in W for the first year (without technical losses)

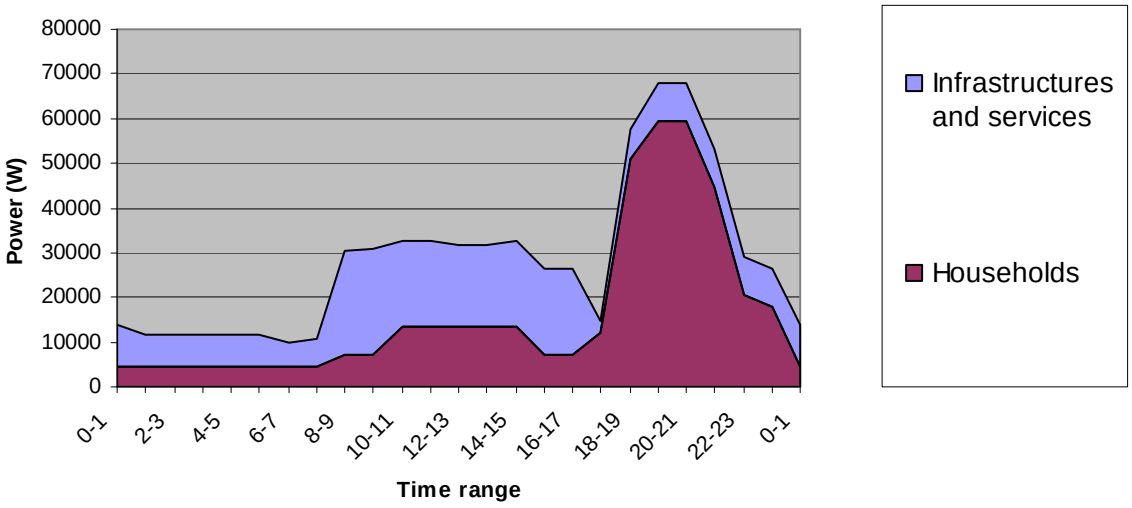

Figure 14 Average daily load curve in W for the 20th year (without technical losses)

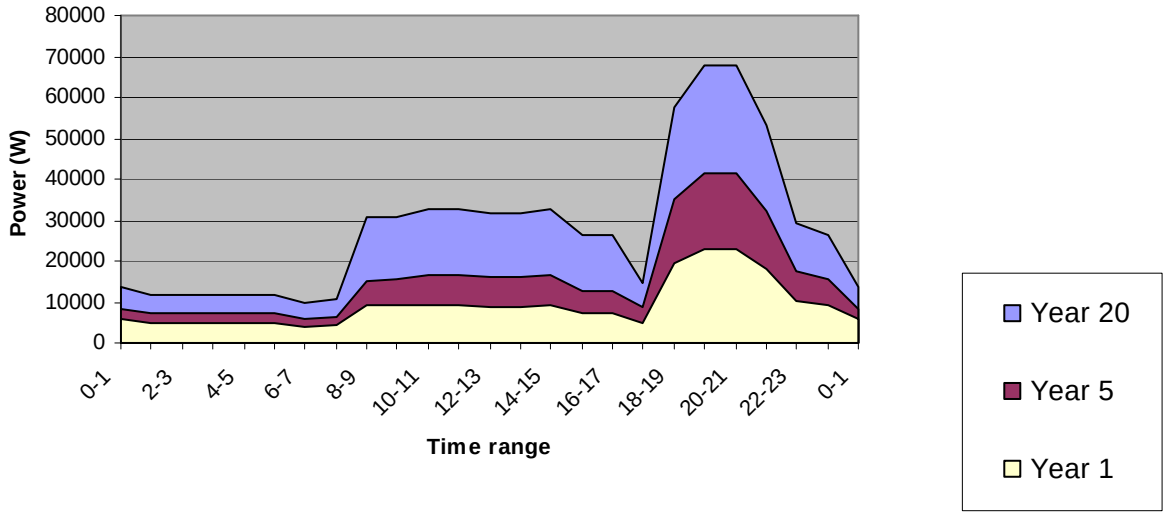

Figure 15 Average daily load curves for the first, 10th and 20th year (without technical losses)

In accordance with [12], peak demand occurs roughly between 6pm and 8pm. It is mainly a consequence of household demand, while daytime demand is mostly non residential demand.

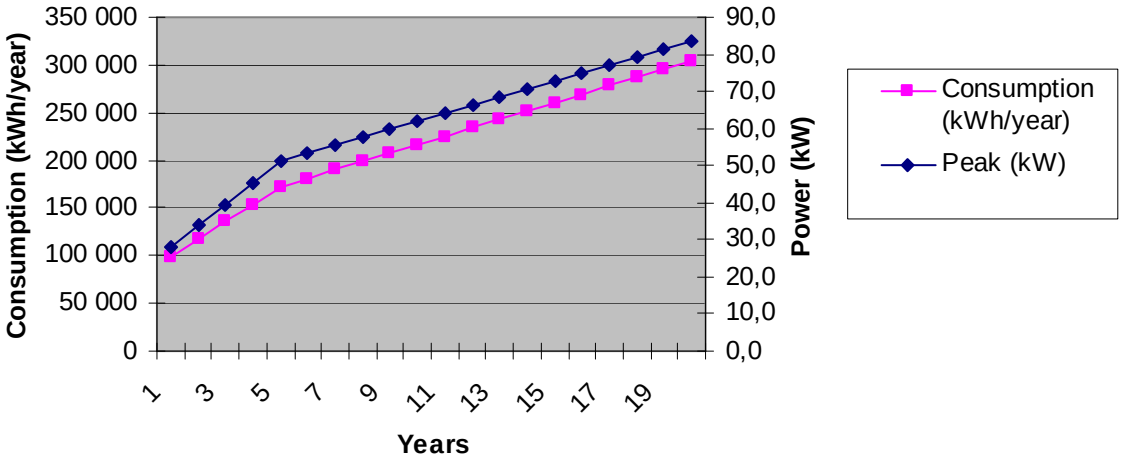

Figure 16 Evolution of yearly consumption and peak demand over the planning period (inc. technical losses)

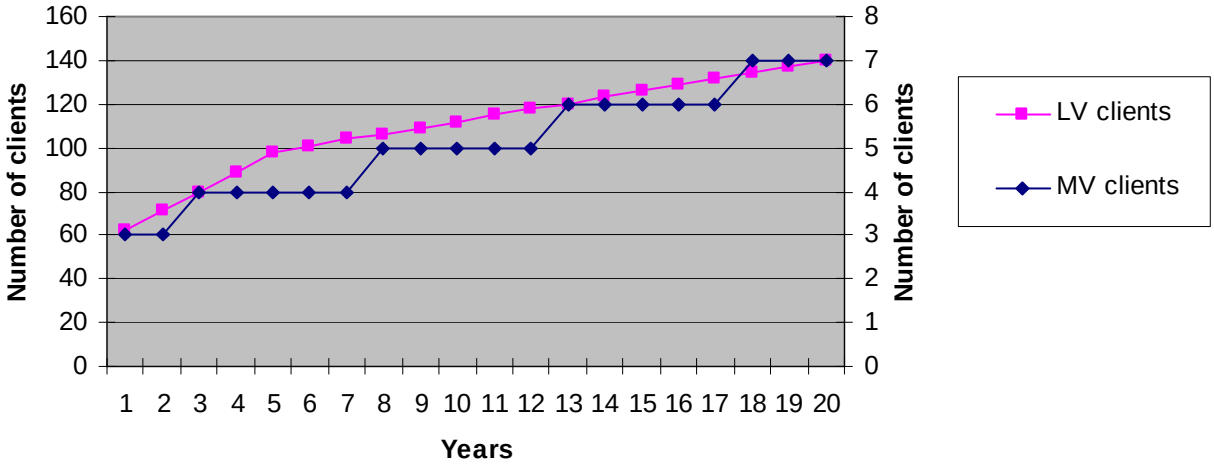

Figure 17 Evolution of LV and MV clients over the planning period (inc. technical losses)

Year	LV clients	MV clients	Yearly consumption (kWh)	Peak demand (kW)
1	62	3	99 347	28.0
2	71	3	117 560	33.8
3	80	4	135 773	39.6
4	89	4	153 986	45.4
5	98	4	172 199	51.1
6	101	4	181 006	53.3
7	104	4	189 813	55.5
8	106	5	198 621	57.7
9	109	5	207 428	59.8
10	112	5	216 235	62.0
11	115	5	225 042	64.2
12	118	5	233 849	66.3
13	120	6	242 656	68.5
14	123	6	251 464	70.7
15	126	6	260 271	72.9
16	129	6	269 078	75.0
17	132	6	277 885	77.2
18	134	7	286 692	79.4
19	137	7	295 499	81.6
20	140	7	304 307	83.7

Table 19 Summary of results (inc. technical losses)

2.7.2 GEOSIM results

The results of the load forecast for all villages in Khammuon province will now be presented. Figure 18 below shows the yearly consumption of each village for the first year of the planning period (the size of the dot representing villages is proportional to their consumption) while Figure 19 shows results at the district level.

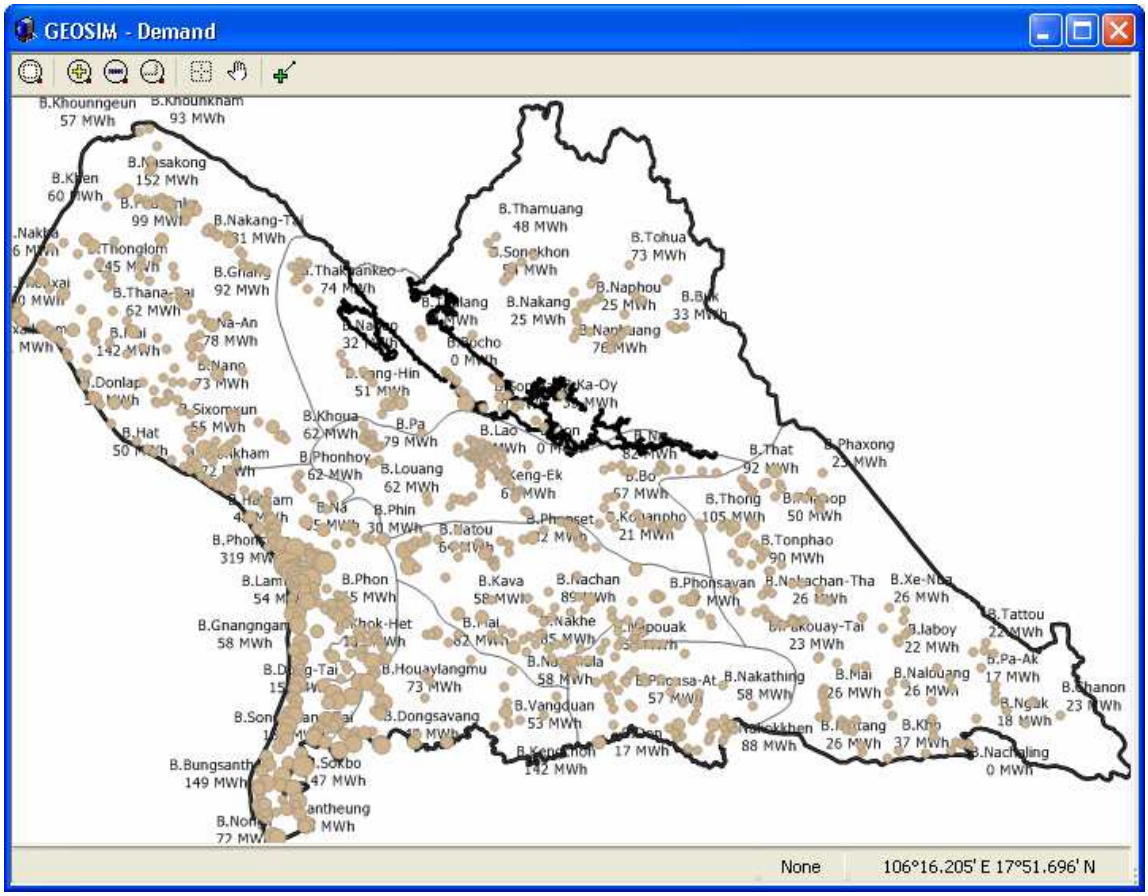

Figure 18 Results per village

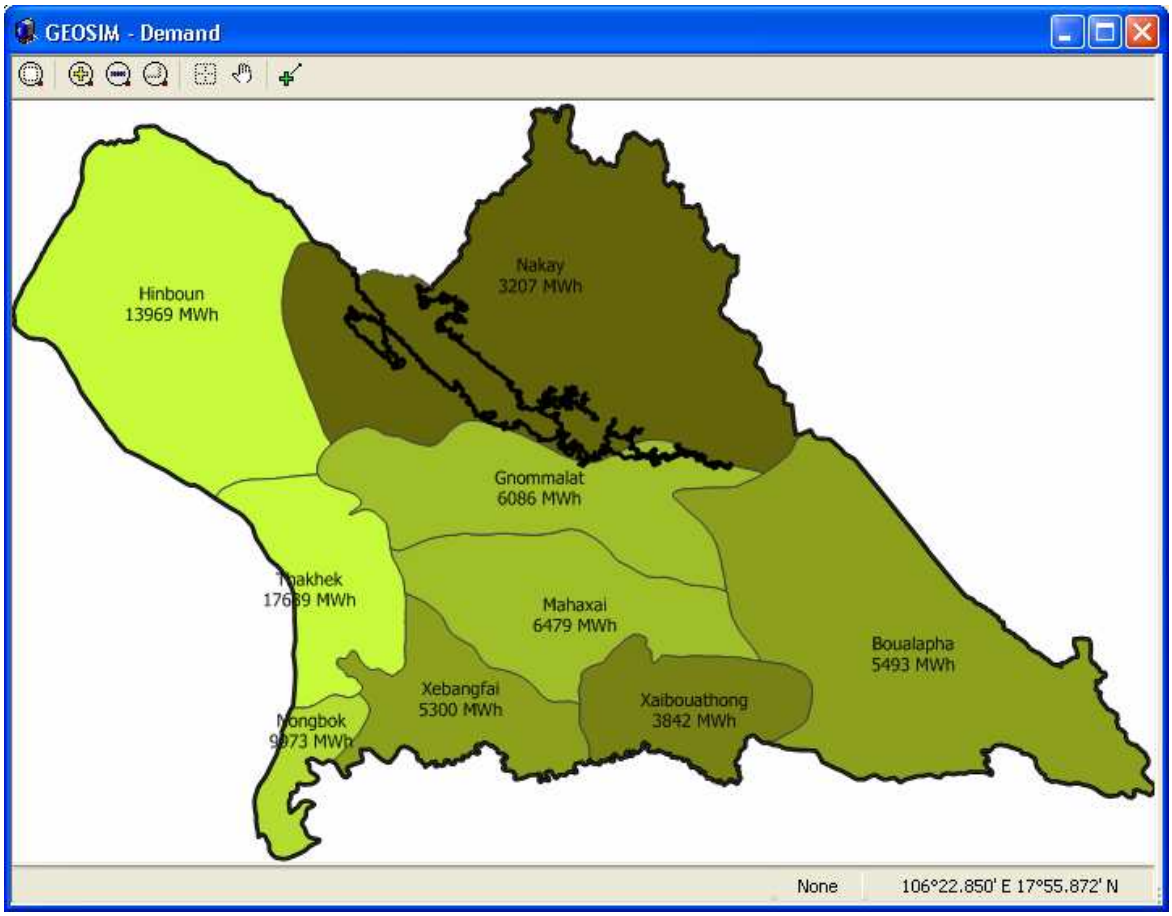

Figure 19 Results per district

District	Population	Consumption year 1 (MWh)	Consumption year 10 (MWh)	Consumption year 20 (MWh)
Boualapha	25 058	5 493	15 436	30 166
Gnommalat	28 063	6 086	17 618	34 942
Hinboun	65 888	13 969	40 819	77 174
Mahaxai	29 976	6 479	18 059	34 630
Nakay	20 956	3 207	9 089	17 578
Nongbok	49 161	9 973	28 935	51 662
Thakhek	89 329	17 639	52 107	95 628
Xaibouathong	17 715	3 842	10 811	21 147
Xebangfai	25 856	5 300	15 398	28 162
Total	**352 002**	**71 988**	**208 273**	**391 088**

Figure 20 Consolidated results per district

Demand is naturally higher in populated areas along the Mekong river (Hinboun, Thakhek and Nongbok districts), while remote areas like Nakay and Boulapha districts have a much lower demand.

The power development plan of EDL [12] measured an average yearly consumption of 187kWh per capita in 2002 for Khammuon province. This figure is similar to our result of 202kWh in 2008. However, the forecast of EDL for 2008 was much higher (511 kWh). This can be explained by the fact that the data we used was relevant only for remote rural areas, and not urban centres like Thakhek and areas connected to the grid in general. Besides, specific demands (large industries) haven't been included in the forecast yet.

The list of results for all villages is available in ANNEX 10. Yearly consumption, peak demand and domestic share are given for the first year, the 10th and the 20th year.

2.8 Sensitivity analysis

For the purpose of the sensitivity analysis, a high demand scenario has been discussed with stakeholders at the national meeting in Vientiane [16]. The main hypothesis is a decrease in the tariff of electricity. We assume that the elasticity of consumption for different classes of households is not the same: poor households will consume more if tariff is higher, while the consumption of rich households will almost remain the same regardless of tariff. Therefore, consumption of different households classes have been multiplied by the following factors:

- 1.3 for the poor class
- 1.2 for the medium class
- 1.1 for the riche class

Then the annual consumption growth rate of both domestic and non domestic clients is taken equal to 7%, instead of 5%. After the fifth year of the planning period, the growth rate is 2% instead of 1%.

The results of the high scenario for the whole province will be studied in the final rural electrification plan of Khammuon province. However, they won't be presented in full detail in this report. Only the results for a typical 500 inhabitants village are shown below, to allow comparison between the base scenario and the high scenario.

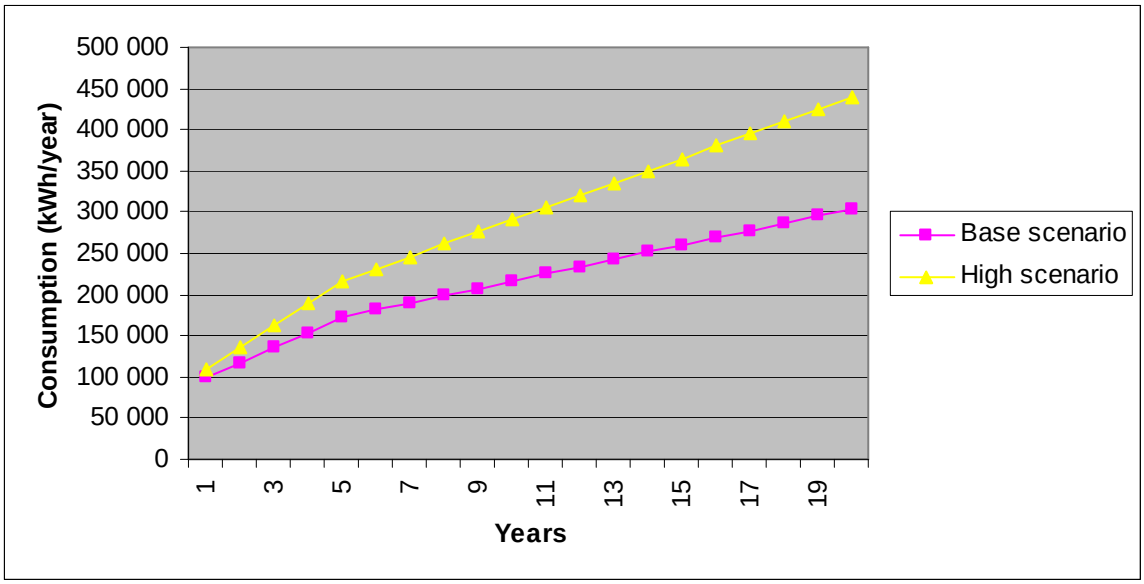

Figure 21 Comparison between high and base scenarios for a 500 inhabitants village

Not surprisingly, the difference between the two scenarios is rather significant at the end of the planning period. In the first year, the high scenario is 11% above the base scenario, while in the last year the difference reaches 44%.

3 Suggestions

You will find below a few suggestions to improve the accuracy of results for Kampong Cham and Khammuon provinces, as well as others:

- In each province, the whole study area has been treated as one single region. You may want to distinguish some areas, especially those close and far from roads (as it has been done in the power development plan of EDL [12]).
- Few special demands have been taken into account. Provided sound data on medium to big industries and agri-businesses are available, they should be added to the load forecast for more accurate results. GIS multisector databases have georeferenced lists of industries, what is lacking is reasonable estimates of their power demand. Special Economic Zones (SEZ) in KampongCham and several mines in Khammuon are currently being studied, they are good candidates for these special demands.
- Finally growth assumptions (evolution of connection rates and consumption growth rates throughout the planning period) can be revised. These parameters have a very significant impact on results and are by nature difficult to assess.

ANNEX 1 References

Kampong Cham

[1] "The master plan study on rural electrification by renewable energy in the kingdom of Cambodia", JICA. 2006
[2] "Rural Electrification in Cambodia", presentation at CAP REDEO multistakeholder meeting, Heng KunLeang (MIME). 2007
[3] "Energy and Electricity Outlook of Cambodia", H.E. Tun Lean (MIME). 2001
[4] "Annual Report", EDC. 2002
[5] "RE Strategy & Programme", Meritec & KCEC. 2001
[6] "Review and assessment of water resources for hydropower and identification of priority projects", CPEC & ACT. 1995
[7] Socio-economic survey in Kampong Cham, CAP REDEO. 2007
[8] GIS Multisector database of Kampong Cham, CAP REDEO. 2007
[9] National Stakeholder meeting in Phnom Penh, CAP REDEO. 2008

Khammuon

[10] "Evaluation of Rural Electrification, Socio-Economic Survey, Establishment of Database for Rural Electrification Planning in Lao PDR", International Development Association. 2004
[11] "The study on rural electrification project by renewable energy in the Lao PDR", JICA. 2001
[12] "Power Development Plan", Electricité du Laos. 2004
[13] "EDL Tariff study", Electrowatt-Ekono Ltd. & Fichtner. 2004
[14] Socio-economic survey in Khammuon, CAP REDEO. 2007
[15] GIS Multisector database of Khammuon, CAP REDEO. 2007
[16] National Stakeholder meeting in Vientiane, CAP REDEO. 2008

ANNEX 2 Survey templates of Kampong Cham (Village)

GENERAL INFORMATION ON THE VILLAGE/TOWN
(for chairman of settlement / community leader / official)

Location/Spatial characteristics

1	Date of survey:		Name of Enumerator:	
2	Rural Village/Town Name:			
	Province:		Longitude: Latitude:	
3	Total population in Village/Town:		Total HH in Village/Town :	

4	Access to the Village/Town by:	1	Asphalt road	4	Track road in bad state	
		2	Gravel road	5	Only by foot	
		3	Track road in good state	6	Other_____	

5 If Access by Road only by Track Road (4) and by foot (5) :

What is the distance to the closest Track Road in good state?	km	

Economic Characteristics

6	Range of income levels in the village / town:	Class (INCOME RANGE)	% HH
		High (>200$/month)	
		Medium (100-200$)	
		Low (<100$/month)	

7 Main sources of income in the Village/Town (as %)

1. Agriculture/Fishing/Animal husbandry		3. Small Industry	
2. Commerce		4. Other, please specify:	
		_____	

8 Principal Crops Grown in the Area: (Yes / No)

	Yes	No		Yes	No
1. Coffee			6. Potatoe		
2. Rice			7. Sugar		
3. Maize			8. Other, please specify:		
4. Barley			_____		
5. Cotton					

9 Months of Harvest for principle crop: (Cross if applicable)

Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec

10 Number of activities in the Village/Town (provide number in the space given)

1. Mills		12. Health Centre	
2. Coffee Processing		13. Health Post	
3. Oil presses		14. Primary Schools	
4. Restaurants/drink houses		15. Secondary schools	
5. Bakeries		16. Adult education	
6. Car/Motorcycle Mechanic		17. Pagoda	
7. Wood Works		18. Government offices	
8. Metal Works		19. Telecommunications	
9. Shops		20. Power supplier	
10. Hotels		21. Battery recharging stations	
11. Hospitals / clinic		22. Number of Market Vendors	

11 Number Drinking Water Boreholes Powered by a Generator supplying the village:

12 Main Drinking Water Sources Used by the Village Population:

1. Borehole/well		4. Open water source (river)	
2. Communal Hand Pump		5. Other, please specify:	
3. Formal Water Scheme (pumped)			

13 Markets:

1. No market		4. Mobile market	
2. Daily market		5. Other, please specify:	
3. Weekly market			

14 Development associations and microcredit

Please cross if the following structures are active in the village:

1. AMRET		3. NGOs, please specify:	
2. ACLEDA			

15 Village/Town Energy Profile

Please complete the table by answering the following questions regarding the energy profile within the Village/Town. (Note: Gensets are those that are only used for the household or business purposes of the owner. Electricity service providers are those that own a generator for the sale of electricity as a business to the surrounding community. It does not include formal electricity supply from a state-owned mini-grid.) If there are commercial power vendors in the Village/Town, please survey them.

15-1: Fuel costs

	Local currency / Litre
Kerosene price in Village/Town	
Diesel price in Village/Town	

15-2: Villages/Towns Non electrified

	Gensets	Electricity Service Providers		Motor-mechani	Solar PV	Car Battery
		#1	#2			
How many are there in the Village/Town?						--
How many HHs do each provide with electricity?	--			--		--
How many businesses do they provide with electricity (excluding hospitals, clinics, and schools)?	--			--		--
When is the electricity provided? *give range 0-24 hrs. (i.e. 8-12 and 15-20).*	--			--		--
What is the cost of service? (local currency/Month)	--			--		
Who administers the service? *(1=private operator, 2=Community, 3=Government, 4=NGO)*	--					

15-3: Villages/Towns electrified

i	Year Electrified:			
ii	Total number of Households Connected		Total Number of Commercial activities connected?	
iii	Who provides the electricity service? (1- Utility 2- Co-operative, 3- Private, 4- Municipality):			
iv	For how many hours per day is the electricity service provided?			

v	For how many days per week is the formal electricity service provided?			
vi	Is the community in any way involved in the collection of payments?	Yes	1	
		No	2	
vii	Please provide the tariff details: (local currency / KWh)	Residential		
		Commercial		
		Industry		
viii	What is the connection fee?	Household		
		Business		
		Small Industry		
ix	Average Electricity Consumption per month:	Household		
		Business		
		Small Industry		

18 Comments

ANNEX 3 Survey templates of Kampong Cham (Businesses and services)

2: COMMERCIAL ACTIVITIES AND PUBLIC SERVICES

1 Area Identification

Date:	___/___/2007
Enumerator	

Village / Town:	
Province:	

2 Activity Identification

Codes for type of Activity

1	Mills/grinding engines	11	Health Centre
2	Coffee Processing	12	Health Post
3	Oil presses	13	Water pump
4	Restaurant	14	Telecommunications
5	Drink house / bar	15	Metal Works
6	Bakeries	16	Wood Works
7	Car Mechanic	17	Power supplier
8	Shop	18	Battery recharging stations
9	Hotel	19	Other, specify:
10	School		_____

Name	
Activity Type	

Ownership of Activity/ Business	*1=Government, 2=Private, 3=Community 4-Other, specify below*	

3	Are there seasonal variations in this business/activity?	*1=Yes, 2=No*	

Operating in the year : please complete	**Full Operation**	**Partial Operation**	**Total shut-down**
Months of the year (specify months)			
Typical working hours per day			
Working days per week			
Days Closed per year (special holidays)			
Average Monthly Electricity Consumption (kWh)			

4 Ownership of Generating Equipment

Is the business/activity connected to an electricity service?	*1=Yes, 2=No*	
If yes, in which year was it connected?		
If yes, what is the average monthly bill? *(in Local currency)*		
Please check the last bill and provide the electricity consumption for that month (kWh)		
If there was a connection charge how much was it? *(in Local currency)*		
If the business / activity in Q. 2 is power supplier, please indicate the average tariff (in local currency per kWh)		
If yes, what is the total no° of connections to th is service?		
If the business / activity in Q. 2 is a battery charging station, please indicate the:		
cost / charge (in Local currency): 100Ah:……; 70Ah:…….; 50Ah…….:40Ah:…….		6V:……..
Total incomes per month:……R/month		
Does the business/activity own a generator?	*1=Yes, 2=No*	
Does the business/activity own a Solar/PV system?	*1=Yes, 2=No*	
Does the business/activity make use of a car battery?	*1=Yes, 2=No*	

5	If not already electrified, does the Business have an interest in having a "formal" electricity service?	*1=Yes 2=No*	
5.1	If no, why not?	*(1= too expensive; 2= to far away; 3= no need; 4=other;_____)*	
6	Does the business have any preference as to who should provide such a service?	*1=Private Body 2=Community 3=Government Body 4=Other/Don't know*	
6.1	Why do you prefer this?	*(1= cheaper ; 2= more efficient; 3= Other, specify:_____)*	

7 Appliances, Energy and Cost

Equipment			When Used		Powered with	Fuel			Dry cells	
Type		Unit Power (W) (if relevant)	No°	*give range of hours 0-24:00. i.e. 8-12 and 15-20:00.*	*No° of hours used per day*	*1=Car Bat;2=Dry Cell; 3=Solar; 4=Genset. ;6=Electricity*	Quantity of kerosene purchased at a time (L)	Price per purchase (in local currency)	Total expenditure per month (in local currency)	Type of dry cell	Total expenditure per month (in local currency)
Kerosene Lamp		--				--					
Incandescent bulb							Electricity				
Fluorescent bulbs							Electricity				
CFL Bulbs							Electricity				
Portable Radio		--									
Cassette Player							Electricity				
Fan							Electricity				
Rice cooker							Electricity				
TV	B&W / Colour						Electricity				
VCD/Karaoke							Electricity				
Mobile Phone		--					Electricity				
Other 1 :											
Other 2:											

8 Ownership of Generator or Engine

8.1 If the business/activity owns a Genset or engine, please answer the following question. If not, go to Q 8.2.

Number	Total Capacity (W or HP)		Condition *1=Good; 2=Average; 3=Poor*	Age in years	Fuel used 1=Diesel 2=Kerosen 3=Other	Purchase Cost (Local currency)	Is cost provided for *1=new 2=second-hand*	First please ask the respondent if there are seasonal variations in the use of the genset(s)/motor. If Yes, please provide information for high and low seasons. If No, only complete the first line for each Genset.							
								Indicate months representing High and Low season.	Number of working days	No° of hour used per day	From what time to what time	Litres of fuel used per month	Cost of fuel/litre	Lubricant consumption, l/month	Cost of lubricant / litre
		HP W						All yr round							
								H							
								L							
		HP W						All yr round							
								H							
								L							

Who maintains the Genset. *Is it the Owner (1), service provider in the village (2), Supplier (3), other (4). If other*	
On average, how many times per year does the Genset break down?	
Including transport, how much does it cost per year to maintain your Genset? *(in Local currency)*	
If an overhaul is required, where is it carried out? *1= in the village, 2= in nearby town, 3= in district capital*	

8.2 If the business/activity makes use of a car battery(s), please answer the following questions. If not, go to 8.3

Number	Capacity (Amph)	Voltage	Age in years	Purchase Cost (Local currency)	Cost for *1=new 2=second-hand*	Number of hours used per day	From what time to what time?	Location of charging station (Km)	Cost of a charge	Cost of transport to charging station and back	Number of charges / month

8.3 If the business/activity makes use of a solar/PV system, please answer the following questions.

Number	Total Capacity (Wp)	Manufacturer	Age in years	Condition. *1=Good 2=Average 3=Poor*	Purchase cost (N)	Distance from the village to place of purchase	Number of hours used per day	From what time to what time?

9 Comments

Thank you very much for your time.

Survey checked by Supervisor,
1= *yes, 2=no*

ANNEX 4 Survey templates of Kampong Cham (Household)

3: HOUSEHOLD INTERVIEW SCHEDULE

1. Area Identification

Date:	___/___/2007
Enumerator	

Village / Town:	
District:	
Province:	

2. Household Identification

Occupational Codes

1	*Farmer*	*5*	*Housewife*
2	*Government Official*	*6*	*Labourer or unskilled worker*
3	*Businessman/Trader*	*7*	*Retired/Pensioner*
4	*Craftsmen*	*8*	*Other*

Name of **Household Head:**	
Range of occupations in the household:	

3. Description of Household

Average Number of People living in the Household for all the year:	
Please indicate the number of household members in the age range of 0-18 yrs	

3.1 Building Profile

Walls	Roof	Ground around the house
Cement (3) Wood (2) Palm Leaves (1)	Tiles (3) Iron (2) Palm Leaves (1)	Tiles pavement (3) Cement (2) Mud floor (1)

Total Number of rooms		
Tenure System	*1=Owner, 2=Tenant*	
Duration of stay in years		

4 Electrification status

Does the household own a generator?	*1=Yes, 2=No*	
If yes, how many hours per day is the genset operated ?		h
What is the type of fuel? (1=kerosene, 2=diesel)		
How many liters of fuel are consumed per month ?		L
Average total expenditure per month (maintenance & fuel) in local currency		
Does the household own a Solar/PV system?	*1=Yes, 2=No*	
Average expenditure per month for maintenance in local currency		
Does the household make use of a car battery?	*1=Yes, 2=No*	
Total expenditure per month for battery charging in local currency		
Distance to battery charging station in kilometers		
Is the household connected to an electrical service?	*1=Yes, 2=No*	
If yes, how many hours per day is the service usually available ?		h
If yes, what is the average electricity bill per month in local currency		
Please ask to see the last bill(s) & get the average electricity consumption		kWh
Who provides the service? 1=Government, 2= Private, 3=The Community themselves, 4=other, (please specify) _____		

5 Interest in an Electricity Service (if not already electrified)

5.1	Does the HH have an interest in having a "formal" electricity service?	*1=Yes 2=No*	
	If no, why not?	*(1= too expensive; 2= to far away; 3= no need; 4=other;_____)*	

5.2	Does the HH have any preference as to who should provide such a service?	*1=Private Body 2=Community 3=Government Body 4=Other/Don't know*	
	Why do you prefer this?	*(1= cheaper ; 2= more efficient; 3= Other, specify:_____)*	
5.3	How much would the HH be willing to pay for the service ?		

6. Household Income

	What is the income of the household in local currency per month ?	

7. Appliances, Energy and Cost

Equipment				When Used		Powered with	Fuel			Dry cells	
Type	Unit Power (W) (if relevant)	No. already owned	No wanted after electrification (for unelectrified HH)	*give range of hours 0-24:00. i.e. 8-12 and 15-20:00.*	*No° of hours used per day*	*1=Car Bat;2=Dry Cell; 3=Solar; 4=Genset. ;6=Electricity*	Quantity of kerosene purchased at a time (L)	Price per purchase (in local currency)	Total expenditure per month (in local currency)	Type of dry cell	Total expenditure per month (in local currency)
Kerosene Lamp	--		--			--				--	--
Candles	--		--			--				--	--
Biomass	--	--	--	--	--	--	--	--	--	--	--
Incandescent bulbs							Electricity				
Fluorescent bulbs							Electricity				
CFL Bulbs							Electricity				
Portable Radio	--						--	--	--		
Cassette Player							Electricity				
Fan							Electricity				
Rice cooker							Electricity				
B&W TV							Electricity				
Colour TV							Electricity				
VCD/Karaoke							Electricity				
Mobile Phone	--						Electricity				
Other 1 :											
Other 2:											

8 Comments

Thank you very much for your time.

Survey checked by Supervisor,
1= *yes, 2=no*

ANNEX 5 Survey report of Kampong Cham

1) Introduction

The survey in the selected development poles (selected villages) electrified and non-electrified has been foreseen as one of the main project activities to be implemented in order then to realize the energy load forecasting following the bottom-up approach of the project.

Its main objective is to collect all necessary information related to the socio-economical situation of the surveyed development poles and its energy related usages which will afterward be used to prepare the energy planification in the province done by the Ministry of Industry, Mine and Energy, within the framework of the Cap-Redeo project being supported by the European Commission.

2) General topics of the survey

The survey was undertaken by CDEC Company as the project sub contractor in Cambodia. The followings are the detailed descriptions of activities developed and undertaken during the survey implementation mainly focusing on the following topics:

- Timeframe of the survey
- Selection of targeted villages
- Types of developed questionnaires
- Number of surveyors
- Result of the survey; and
- Remarks

3) Timeframe of the survey

The survey carried out by CDEC Company lasted one week, starting from 15th to 21st October 2007 in 3 districts of 4 villages in the province of Kampong Cham.

4) Selection of targeted villages

The selection was made only based on the selected development poles (or called villages) with high value of IPD (Indicator for Potential Development). With consultation with PDIME of Kampong Cham province (Mr Pou Run), 3 districts of 4 villages (3 non electrified and 1 electrified villages) have then been selected to conduct such a kind of survey. The selected electrified village is located along the national road NR6 from Phnom Penh to Kampong town, and those of non electrified villages are located a little bit far away from the asphalt road – 1 is located around 20 km from the Kampong Cham town, and 2 others are located along the Mekong River where are usually flooded in Rainy season. The time taken to reach each of these non-electrified villages is about 3 hours from the asphalt road due to the fact that the access roads are laterite roads (local roads) being in very bad condition.

The following table shows the detailed selected villages to conduct the survey.

No	District	Commune	Villages	Status & Remarks
1	Kampong Siem	Srak	Lpeak	Not electrified
2	Prey Chhor	Chrey Vien	Prey Totueng	Electrified
3	Srei Santhor	Russei Srok	Russei Srok	Not electrified
		Svay Khsac Krom	Svay Tbong	Not electrified

5) Types of developed questionnaires

4 types of questionnaires have been developed by IED experts as the project coordinator – village surveyed questionnaire, business & service surveyed questionnaire, household surveyed questionnaire and biomass & hydro questionnaire.

- Village surveyed questionnaire: it is done with the village head.
- Business & service questionnaire: it is done with the business shop owners and public service infrastructures such as schools, health center, etc.
- Household surveyed questionnaire: it is done with the household's head. 3 categories of the households (based on the Cambodian view) were chosen to undertake interviews: well-off, medium and poor.
- Biomass & Hydro surveyed questionnaire: it is done with potential biomass raw material producers such as rice millers, saw millers, etc.

6) Number of surveyors

3 surveyors were selected to do the survey in those selected villages. Two staff from CDEC and another is from the PDIME Kampong Cham. Before the field survey, the training on the each category of the questionnaires has been provided by Mr. Ky Chanthan, supervisor of the survey.

The following table details names of surveyors doing the survey.

No	name	Institution	Title
1	Mr. Ky Chanthan	CDEC	supervisor
2	Mr. Sao Sokun	CDEC	Surveyor
3	Mr. Has rany	CDEC	surveyor
4	Mr. Pou Run	PDIME	surveyor

7) Result of the survey

As planned, 15 household surveys, 1 village survey and 2 business surveys were done in each of three non-electrified villages, and 20 household surveys, 1 village survey and 2 business surveys were done in one electrified village, so to say a total of 65 household surveys done, 4 village surveys done, 8 business surveys done.

Moreover, 6 biomass raw material producer surveys were done in two districts. They are rice millers and saw millers (see table below).

No	District	Commune	Villages	Status & Remarks
1	Ponhea Krek	Trapeang Phlong	Trapeang Phlong Pir	Biomass
			Trapeang Phlong Pir	Biomass
2	Tbong Khmum	Suong	Suong Keut	Biomass
			Cheung Lang	Biomass
			Tuong	Biomass
		Chob	Veal Kandieng	Biomass

On the contrary, the visit of 6 hydro sites (one existing and 5 potential sites) were not done yet due to the fact that the access road is really in bad condition while raining and the ongoing looking for local expert is proceeding in order to provide rapid assessment on those potential hydro sites when visited so that additional technical information would be necessarily needed to update existing data already integrated in the Manifold Software. However, it is foreseen that this visit will be carried out in November 2007.

The GIS coordinates of the villages and biomass sites selected to undertake the survey were also made by surveyors.

8) Remarks

Most of people in the village non- electrified seem to have a good living standard as well. Their incomes come from different sources such as agriculture, fishing, animal husbandry, commerce or small industry.
Regarding electricity use, they are strongly interested in having a formal electricity service because they need it, particularly for agriculture, commerce or small industries purposes. For that, they are ready to improve their existing systems by financing more for appliances.
Currently, they are equipped with batteries resulting in a rather high consumption price.

In village electrified, the population already equipped with modern appliances such as TV color, DVD, karaoke, etc. As the price of the electricity supplied by a local private investor is high (most of them have realized that), the batteries are still being used as reserves, and for some of them still use kerosene lamps.

ANNEX 6 Load forecast results of Kampong Cham

LOAD FORECAST

Scenario 24h

Settlement name	population	First year Consumption (kWh)	First year Peak (kW)	First year Domestic share	Mid-term Consumption (kWh)	Mid-term Peak (kW)	Mid-term Domestic share	Horizon Consumption (kWh)	Horizon Peak (kW)	Horizon Domestic share
Kampong Cham										
Batheay										
Routh	736	58 388	15	*32 %*	176 898	65	*57%*	275 742	90	*47%*
Boeng	334	31 085	7	*28 %*	85 655	30	*54%*	133 827	41	*44%*
Samraong	495	40 578	10	*31 %*	118 692	43	*57%*	198 463	62	*44%*
Prasat	469	39 233	10	*31 %*	113 698	41	*57%*	190 251	59	*44%*
Chi Neang	492	40 471	10	*31 %*	118 470	43	*58%*	197 367	61	*44%*
Popit	580	46 108	12	*32 %*	144 193	52	*55%*	257 495	74	*40%*
Kandaol	576	45 550	12	*32 %*	143 916	52	*55%*	256 219	73	*40%*
Chan	621	48 405	12	*33 %*	152 872	55	*56%*	271 184	79	*41%*
Phnum Thum	581	46 144	12	*32 %*	144 948	52	*56%*	258 319	74	*40%*
Kampout	628	49 070	13	*33 %*	154 603	56	*56%*	273 466	80	*41%*
Ba Kal	822	63 539	17	*33 %*	195 120	73	*58%*	303 754	101	*48%*
Prey Kaor	643	49 606	13	*33 %*	157 588	57	*56%*	278 210	82	*41%*
Ta Ngil	802	62 408	16	*33 %*	190 514	71	*58%*	297 643	99	*48%*
Tang Boeng	755	59 482	15	*32 %*	180 804	67	*58%*	282 406	93	*47%*
Kampong Preah	741	58 567	15	*32 %*	177 874	66	*58%*	277 753	91	*47%*
Thmei	845	65 191	17	*33 %*	199 248	75	*58%*	310 779	104	*48%*
Khtum	723	57 508	15	*32 %*	174 079	64	*57%*	272 004	89	*47%*
Roung Damrei	839	64 977	17	*33 %*	198 216	74	*58%*	309 413	103	*48%*
Rung	776	61 063	16	*33 %*	185 465	69	*58%*	288 607	95	*48%*
Baek Peang	1 113	81 416	22	*35 %*	255 169	98	*60%*	429 121	137	*46%*
Sroeng	821	63 503	17	*33 %*	194 365	73	*58%*	303 483	101	*48%*
Balang	803	62 444	16	*33 %*	190 570	71	*58%*	297 734	99	*48%*
Ba Krong	994	74 255	20	*34 %*	230 166	88	*60%*	390 707	123	*45%*
Pou Ruessei	890	68 045	18	*34 %*	208 792	79	*59%*	356 947	111	*44%*
Doun Paen	1 002	74 956	20	*34 %*	232 008	88	*60%*	393 079	124	*45%*
Prey Nha	842	65 084	17	*33 %*	199 082	75	*59%*	310 508	103	*48%*
Kradas Ka	929	70 270	19	*34 %*	216 660	82	*59%*	369 721	115	*44%*
Chan Kong	917	69 426	19	*33 %*	214 541	81	*59%*	366 073	114	*44%*
Trav Phni	869	66 465	18	*33 %*	204 775	77	*59%*	318 810	107	*48%*
Prasoutr Ka	819	63 431	17	*33 %*	194 254	73	*58%*	302 658	100	*48%*
Thma Kaev	1 026	76 229	21	*34 %*	236 891	90	*60%*	401 110	127	*45%*
Kong Chey	988	74 040	20	*34 %*	229 134	87	*60%*	389 250	123	*45%*
Trab	1 221	88 183	25	*35 %*	297 070	108	*57%*	512 779	155	*42%*
Phnum Touch	917	69 426	19	*33 %*	214 541	81	*59%*	366 073	114	*44%*
Prasam	945	71 258	19	*34 %*	220 345	83	*59%*	375 199	118	*45%*
Veal	1 021	76 051	21	*34 %*	235 915	90	*60%*	399 743	127	*45%*
Tum Prong	983	73 447	20	*34 %*	228 157	87	*60%*	387 240	122	*45%*
Trapeang Snao	1 109	81 273	22	*35 %*	254 248	98	*60%*	427 935	137	*46%*
Kradas Kha	1 189	86 209	24	*35 %*	290 345	106	*57%*	502 376	151	*42%*
Tumnob Leu	1 172	85 186	24	*35 %*	287 248	104	*56%*	496 718	149	*42%*
Prasoutr Kha	1 074	79 191	22	*35 %*	247 301	95	*60%*	416 437	133	*46%*
Svay Pok	1 169	85 079	24	*35 %*	286 383	104	*56%*	495 622	149	*42%*
Tao Baek	1 151	84 020	23	*35 %*	282 532	102	*56%*	489 692	147	*42%*
Sroengk	1 043	77 252	21	*34 %*	240 686	92	*60%*	406 859	129	*45%*
Tboung Phnum	1 082	79 477	22	*34 %*	248 499	95	*60%*	418 809	134	*46%*
Sdok Thum	1 161	84 377	23	*35 %*	284 541	103	*56%*	493 160	148	*42%*
Ta Poy	1 323	94 321	26	*36 %*	318 277	117	*57%*	545 534	167	*43%*
Khvet	1 277	91 431	26	*35 %*	308 678	113	*57%*	530 568	162	*43%*
Thkov	1 006	75 099	20	*34 %*	232 929	89	*60%*	394 356	125	*45%*
Tuol Chan	1 443	114 571	30	*32 %*	343 335	128	*58%*	584 129	182	*44%*
Tang Srei	1 302	93 155	26	*36 %*	314 260	116	*57%*	538 599	165	*43%*
Anlong Chrey	1 436	113 906	29	*32 %*	341 549	127	*58%*	581 757	181	*44%*
Tang Roleang	1 181	85 923	24	*35 %*	289 146	105	*57%*	499 914	150	*42%*
Andoung Snay	1 258	90 337	25	*35 %*	304 771	112	*57%*	524 548	160	*42%*
Trayang Pong	1 291	92 347	26	*35 %*	311 552	114	*57%*	535 041	163	*43%*
Phnum Del	1 312	93 928	26	*36 %*	316 268	116	*57%*	542 067	166	*43%*

LOAD FORECAST

Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Chreaek	1 259	90 372	25	*35 %*	304 827	112	*57%*	524 639	160	*42%*
Stueng Chveng	1 413	112 668	29	*32 %*	336 777	125	*58%*	573 997	178	*44%*
Kouhe	1 344	95 902	27	*36 %*	322 294	119	*58%*	551 735	170	*43%*
Chbar Ampov	1 527	119 650	31	*33 %*	360 747	135	*59%*	611 045	192	*44%*
Me Pring	1 350	96 117	27	*36 %*	324 026	120	*58%*	553 926	170	*43%*
Sangkaeub	1 405	111 967	29	*32 %*	335 578	124	*58%*	571 626	177	*43%*
Ak Tieng	1 487	116 975	30	*32 %*	352 180	131	*58%*	598 180	187	*44%*
Trabaek	1 534	119 900	31	*33 %*	361 890	135	*59%*	613 417	193	*44%*
Tang Thlaeung	1 645	126 775	34	*33 %*	384 996	145	*59%*	648 634	206	*45%*
Boeng Veaeng	1 823	137 706	37	*34 %*	451 733	163	*56%*	706 024	227	*46%*
Prayuk	1 413	112 668	29	*32 %*	336 777	125	*58%*	573 997	178	*44%*
Chong	1 751	133 471	36	*34 %*	437 084	157	*55%*	682 756	218	*45%*
Ou Mal	2 318	176 710	48	*33 %*	554 895	206	*58%*	865 056	286	*47%*
Tang Kouk	2 151	166 588	45	*33 %*	520 127	192	*57%*	811 225	266	*47%*
Me Sar	2 091	153 931	42	*35 %*	507 598	187	*57%*	792 249	259	*47%*
Kampal	1 978	146 984	40	*34 %*	484 326	177	*56%*	756 026	245	*46%*
Cheung Prey	2 108	163 805	44	*33 %*	511 393	188	*57%*	797 355	261	*47%*
Srah Pring	2 394	181 503	50	*34 %*	570 465	213	*58%*	889 510	295	*48%*
Chea Lea	2 180	168 455	45	*33 %*	526 042	194	*57%*	820 713	269	*47%*
Tang Krang	2 165	167 503	45	*33 %*	523 057	193	*57%*	815 878	268	*47%*
Tang Chrey	2 547	190 710	53	*34 %*	602 304	226	*58%*	938 688	313	*48%*
Pou Steang	2 596	193 708	53	*34 %*	612 126	230	*59%*	954 749	319	*48%*
Svay Prey	3 170	229 176	65	*35 %*	731 724	280	*60%*	1 138 778	387	*49%*
Cheung Chhnok	2 924	214 153	60	*35 %*	680 575	259	*59%*	1 060 131	358	*49%*
Tuol	3 506	249 492	71	*36 %*	801 372	309	*60%*	1 247 175	428	*50%*
Batheay	3 667	259 400	74	*36 %*	834 409	323	*61%*	1 298 816	447	*50%*
Ph'av	4 489	346 919	90	*33 %*	1 062 599	394	*58%*	1 656 345	545	*48%*
Sambour	4 813	329 850	97	*37 %*	1 072 152	422	*62%*	1 667 155	583	*51%*
		8 675 442		***34%***	**27 421 909**		***58%***	**44 747 083**		***46%***
Chamkar Leu										
Srongchan	153	19 632	4	*19 %*	48 012	14	*44%*	75 432	19	*36%*
kasithan	256	26 221	5	*25 %*	69 330	23	*51%*	108 458	31	*42%*
Ou Dar	248	25 520	5	*24 %*	67 488	22	*51%*	105 996	30	*41%*
Proeks	268	26 650	5	*25 %*	72 094	24	*52%*	112 750	33	*42%*
Village77	437	37 259	9	*30 %*	106 973	38	*57%*	166 763	53	*46%*
Phlak	273	27 244	6	*26 %*	73 070	24	*52%*	114 117	33	*42%*
Choam Chrey	520	42 302	11	*31 %*	124 274	46	*58%*	206 584	65	*45%*
Neang Laeung	579	46 072	12	*32 %*	144 138	52	*55%*	257 405	74	*40%*
mopeypi	429	36 558	9	*30 %*	105 131	38	*56%*	164 301	52	*46%*
Tuol Prak	469	39 233	10	*31 %*	113 698	41	*57%*	190 251	59	*44%*
sahakkreas	601	47 274	12	*32 %*	148 910	54	*56%*	264 430	76	*40%*
Ou Kravan	531	43 111	11	*32 %*	126 338	46	*58%*	210 141	66	*45%*
Tuol Meas	544	43 576	11	*31 %*	129 157	48	*58%*	213 880	68	*45%*
Phum Samseb	466	39 126	10	*31 %*	112 833	41	*57%*	189 156	58	*44%*
Tamum	658	50 558	13	*33 %*	160 573	59	*57%*	282 954	83	*41%*
Ou Ta Saeng	801	62 373	16	*33 %*	190 403	71	*58%*	296 728	98	*48%*
Tuol Srov	732	58 245	15	*32 %*	175 977	65	*57%*	274 556	90	*47%*
Samsebbram	555	44 384	11	*32 %*	131 221	49	*58%*	218 082	69	*45%*
Kbal Hong Thmei	770	60 434	16	*32 %*	183 789	68	*58%*	287 150	95	*48%*
Sambour	606	47 453	12	*32 %*	149 886	54	*56%*	266 440	77	*40%*
Doun Bos	669	51 366	13	*33 %*	163 226	60	*57%*	286 421	85	*41%*
Mouha	764	60 219	16	*32 %*	182 702	68	*58%*	284 959	94	*47%*
elx dobmuy	920	69 533	19	*33 %*	215 406	81	*59%*	367 169	114	*44%*
Kromhun	769	60 398	16	*32 %*	183 678	68	*58%*	286 326	94	*47%*
Phum Sambuon	818	63 396	17	*33 %*	194 199	73	*58%*	302 478	100	*48%*
Kralaeng Lech	988	74 040	20	*34 %*	229 134	87	*60%*	389 250	123	*45%*
Tuol Paen	922	70 020	19	*34 %*	215 517	81	*59%*	367 350	115	*44%*
Phum Sammuoy	873	67 023	18	*33 %*	205 052	77	*59%*	319 996	107	*48%*
Phum Sambei	852	65 442	17	*33 %*	201 035	75	*59%*	313 151	104	*48%*

LOAD FORECAST

Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Kbal Hong Chas	681	52 210	14	*33 %*	165 345	61	*57%*	290 070	86	*41%*
Lvea Tboung	954	71 994	19	*34 %*	222 242	84	*59%*	377 842	118	*45%*
Praeus Meas	1 064	78 418	21	*34 %*	244 704	94	*60%*	413 060	131	*46%*
Souchey	997	74 362	20	*34 %*	231 032	88	*60%*	391 803	124	*45%*
Srae Preal	1 054	78 061	21	*35 %*	242 695	93	*60%*	410 327	131	*45%*
Svay Chuor	1 197	86 910	24	*35 %*	292 187	106	*57%*	504 839	152	*42%*
Veal	1 063	78 383	21	*34 %*	244 648	94	*60%*	412 970	131	*46%*
sahakkran	985	73 518	20	*34 %*	228 268	87	*59%*	388 155	122	*45%*
Veal Thnong	1 101	80 987	22	*35 %*	252 406	97	*60%*	425 473	136	*46%*
Trapeang Beng	1 010	75 242	20	*34 %*	233 850	89	*60%*	395 542	125	*45%*
Banteay Chey	1 133	82 961	23	*35 %*	278 736	101	*56%*	483 943	144	*41%*
Trapeang Chhuk	1 258	90 337	25	*35 %*	304 771	112	*57%*	524 548	160	*42%*
Chamraeun Phal	1 163	84 449	23	*35 %*	285 295	104	*56%*	494 074	148	*42%*
Chhuk	1 278	91 467	26	*35 %*	308 733	113	*57%*	530 659	162	*43%*
Rongchak	1 112	81 380	22	*35 %*	255 113	98	*60%*	429 031	137	*46%*
Lvea Cheung	805	62 516	16	*33 %*	191 325	71	*58%*	297 914	99	*48%*
lekmoy	1 259	90 372	25	*35 %*	304 827	112	*57%*	524 639	160	*42%*
Peaeng Meas	2 258	173 319	47	*33 %*	542 366	201	*58%*	846 081	279	*47%*
Rumchek	1 468	115 880	30	*32 %*	348 274	130	*58%*	591 516	184	*44%*
Kralaeng Kaeut	1 640	126 596	34	*33 %*	384 019	145	*59%*	647 358	205	*45%*
Doun Thi	1 661	127 762	34	*33 %*	388 680	147	*59%*	653 559	207	*45%*
sam sibbi	1 512	118 699	31	*33 %*	357 762	134	*58%*	606 301	190	*44%*
Srae Prang	1 474	116 510	30	*32 %*	350 005	131	*58%*	593 797	185	*44%*
Phum Sampir	1 560	121 660	32	*33 %*	367 528	138	*59%*	621 628	196	*44%*
Trapeang Ruessei	1 994	147 972	40	*34 %*	487 367	178	*57%*	760 861	247	*46%*
Bos Thlan	1 555	121 066	32	*33 %*	366 551	137	*59%*	619 618	195	*44%*
Phum Bei	1 716	130 974	35	*33 %*	429 493	154	*55%*	671 811	214	*45%*
Chranaom	1 705	130 581	35	*33 %*	427 429	153	*55%*	668 254	213	*45%*
Ou Pes	2 050	151 634	41	*34 %*	498 975	183	*57%*	778 650	254	*47%*
Pramat Dei	1 640	126 596	34	*33 %*	384 019	145	*59%*	647 358	205	*45%*
Chamkar Andoung	1 556	121 517	32	*33 %*	366 607	137	*59%*	620 352	195	*44%*
Trapeang Lpov	2 149	166 516	45	*33 %*	519 372	191	*57%*	811 044	266	*47%*
Popreng	1 688	129 558	34	*33 %*	423 689	152	*55%*	662 595	211	*45%*
Veal Ri Lech	1 478	116 653	30	*32 %*	350 282	131	*58%*	594 983	186	*44%*
Veal Ri Kaeut	1 682	128 928	34	*33 %*	422 657	151	*55%*	660 494	210	*45%*
Spueu Lech	1 986	147 686	40	*34 %*	485 525	177	*56%*	758 489	246	*46%*
Thnal Baek Lech	1 981	147 507	40	*34 %*	484 548	177	*56%*	757 122	246	*46%*
Prasaeur	2 462	185 595	51	*34 %*	584 837	219	*58%*	911 592	303	*48%*
Peaeng Meas	1 405	111 967	29	*32 %*	335 578	124	*58%*	571 626	177	*43%*
elx BI	2 170	167 682	45	*33 %*	524 033	193	*57%*	817 245	268	*47%*
Thlok Kravan	2 471	186 332	51	*34 %*	586 734	220	*58%*	914 144	304	*48%*
Sampoar	2 227	171 381	46	*33 %*	535 697	198	*57%*	835 769	275	*47%*
Saray	2 338	178 256	49	*34 %*	558 857	208	*58%*	871 811	288	*47%*
Sameakki	2 601	194 301	54	*34 %*	613 102	231	*59%*	956 116	320	*48%*
Svay Teab	2 968	216 557	61	*35 %*	689 420	262	*59%*	1 074 182	363	*49%*
Spueu Kaeut	3 267	235 135	67	*35 %*	751 311	288	*60%*	1 170 166	399	*49%*
Tang Krang	3 278	235 528	67	*35 %*	754 019	289	*60%*	1 173 724	400	*49%*
Cheyyou	3 423	244 449	70	*36 %*	784 015	302	*60%*	1 220 350	418	*50%*
Dab Meakkakra	3 373	241 416	69	*36 %*	773 440	297	*60%*	1 204 108	412	*50%*
Ta Ong	3 516	250 265	71	*36 %*	803 325	310	*60%*	1 249 909	429	*50%*
Thnal Baek Kaeut	3 366	241 166	69	*36 %*	772 352	297	*60%*	1 201 826	411	*50%*
Bos Khnor	3 745	264 265	76	*36 %*	850 734	330	*61%*	1 323 540	456	*50%*
Spueu Ka	4 968	339 129	100	*37 %*	1 104 746	435	*62%*	1 716 514	602	*51%*
		8 869 267		***34%***	**27 916 769**		***58%***	**45 002 056**		***46%***
Cheung Prey										
Bos Ta Mom	1 675	128 678	34	*33 %*	391 610	148	*59%*	658 212	209	*45%*
Kralanh	227	24 354	5	*24 %*	63 415	20	*50%*	98 971	28	*40%*
Thmei	274	27 280	6	*26 %*	73 126	24	*52%*	114 208	34	*42%*
Sram Lech	356	32 287	7	*28 %*	90 427	32	*55%*	140 943	43	*45%*

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Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Trapeang Snao	299	28 589	6	*26 %*	78 064	26	*53%*	122 238	37	*43%*
Pra Ten	432	37 080	9	*30 %*	105 997	38	*56%*	165 396	53	*46%*
Srah Angk Kam	428	36 522	9	*30 %*	105 076	38	*56%*	164 210	52	*46%*
Pra Theat	439	37 331	9	*30 %*	107 084	38	*56%*	180 673	55	*43%*
Kngaok	507	41 422	10	*31 %*	121 456	44	*58%*	202 111	63	*44%*
Chhuk	987	74 005	20	*34 %*	229 078	87	*60%*	388 426	122	*45%*
Trapeang Trom	1 656	127 584	34	*33 %*	387 703	146	*59%*	652 192	207	*45%*
Ang	568	45 264	11	*32 %*	142 074	51	*55%*	253 847	72	*40%*
S'ang	600	47 238	12	*32 %*	148 799	54	*56%*	264 249	76	*40%*
Sram Kaeut	507	41 422	10	*31 %*	121 456	44	*58%*	202 111	63	*44%*
Bati	787	61 457	16	*32 %*	187 529	70	*58%*	292 165	97	*48%*
Srama	561	44 599	11	*32 %*	140 986	50	*55%*	251 565	72	*39%*
Prey Char Knong	698	53 233	14	*34 %*	169 141	62	*57%*	295 819	88	*42%*
Pra Khnor	575	45 514	12	*32 %*	143 217	51	*55%*	256 128	73	*40%*
Sdaeung Chey	780	61 207	16	*33 %*	185 743	69	*58%*	289 884	96	*48%*
Sram Cheung	836	64 454	17	*33 %*	197 351	74	*58%*	308 227	103	*48%*
Tumpoar	723	57 508	15	*32 %*	174 079	64	*57%*	272 004	89	*47%*
Kandal	863	66 250	18	*33 %*	203 099	76	*59%*	316 709	106	*48%*
areaks	732	58 245	15	*32 %*	175 977	65	*57%*	274 556	90	*47%*
Trapeang Kor	751	59 339	15	*32 %*	179 883	67	*58%*	280 577	92	*47%*
Sangkae Pong	855	65 549	17	*33 %*	201 901	76	*59%*	314 247	105	*48%*
Tnaot Bak	793	62 086	16	*33 %*	188 561	70	*58%*	294 266	97	*48%*
Ta Ni	1 056	78 132	21	*35 %*	243 505	93	*60%*	410 598	131	*45%*
Doun Tao	1 651	126 990	34	*33 %*	386 727	146	*59%*	650 916	206	*45%*
Trapeang Thma	926	70 163	19	*34 %*	216 438	82	*59%*	368 626	115	*44%*
Trapeang Chhuk	2 190	168 813	46	*33 %*	527 995	195	*57%*	823 999	271	*47%*
Kakaoh	953	71 959	19	*34 %*	222 187	84	*59%*	377 662	118	*45%*
Trapeang Ph'av	1 077	79 298	22	*35 %*	247 523	95	*60%*	417 533	133	*46%*
Pana	1 058	78 204	21	*34 %*	243 616	93	*60%*	411 513	131	*46%*
Totoul	1 153	84 091	23	*35 %*	283 342	103	*56%*	490 697	147	*42%*
Thmei	1 136	83 068	23	*35 %*	279 602	101	*56%*	485 039	145	*41%*
Ngang	1 633	125 931	33	*33 %*	382 876	144	*59%*	644 986	204	*45%*
Andoung Treang	1 101	80 987	22	*35 %*	252 406	97	*60%*	425 473	136	*46%*
Kdoy	1 220	88 148	25	*35 %*	297 014	108	*57%*	512 045	155	*42%*
Cham Neang	1 121	82 117	23	*35 %*	257 011	99	*60%*	431 584	138	*46%*
Trapeang Tmat	961	72 245	19	*34 %*	223 385	85	*59%*	380 124	119	*45%*
Sandaek	1 021	76 051	21	*34 %*	235 915	90	*60%*	399 743	127	*45%*
Chambak	2 040	150 862	41	*34 %*	497 022	182	*57%*	776 007	253	*47%*
Ampil Tvear	1 711	130 796	35	*33 %*	428 517	154	*55%*	669 891	213	*45%*
Chheu Teal	1 241	89 314	25	*35 %*	301 031	110	*57%*	518 889	157	*42%*
Damnak Ampil	1 345	95 938	27	*36 %*	323 049	119	*58%*	552 650	170	*43%*
Pra Boeng	1 459	115 558	30	*32 %*	346 376	129	*58%*	588 963	183	*44%*
Prey Char Leu	1 329	94 951	27	*36 %*	319 365	118	*57%*	547 082	168	*43%*
Pnov Kaeut	1 328	94 915	27	*36 %*	319 254	118	*57%*	546 810	168	*43%*
Pnov Lech	1 662	127 798	34	*33 %*	388 791	147	*59%*	654 383	208	*45%*
Doun Dom	1 121	94 436	24	*30 %*	276 121	99	*56%*	462 713	138	*43%*
Svay Meas	881	67 309	18	*33 %*	206 894	78	*59%*	354 394	110	*44%*
Boeng Chrouy	2 201	181 940	46	*31 %*	549 813	196	*55%*	858 686	272	*45%*
Sou Tip	1 662	127 798	34	*33 %*	388 791	147	*59%*	654 383	208	*45%*
Kouk Rovieng	2 101	163 555	44	*33 %*	509 606	187	*57%*	795 717	260	*47%*
Trapeang Tuem	1 532	119 829	31	*33 %*	361 724	135	*59%*	612 411	192	*44%*
Knaor Dambang	1 763	133 900	36	*33 %*	439 847	158	*55%*	687 048	220	*45%*
Komar	625	48 548	12	*32 %*	153 793	56	*56%*	272 461	79	*41%*
Pring Chum	1 714	130 903	35	*33 %*	429 382	154	*55%*	670 987	214	*45%*
Kaoh Champa	1 680	128 857	34	*33 %*	392 586	148	*59%*	660 223	210	*45%*
Trapeang Sla	2 090	153 895	42	*35 %*	507 542	187	*57%*	791 515	259	*47%*
Siem Bay	1 791	148 050	36	*31 %*	464 762	161	*53%*	726 750	223	*44%*
Pongro	1 702	130 474	35	*33 %*	427 262	153	*55%*	667 248	213	*45%*
Sangkae	1 922	143 737	39	*34 %*	472 718	172	*56%*	737 593	239	*46%*
Bakham	286	28 124	6	*27 %*	75 245	25	*52%*	118 500	35	*43%*

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Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Sampong Chey	1 047	77 395	21	*34 %*	241 608	92	*60%*	408 045	130	*45%*
Pou	913	69 283	19	*34 %*	213 620	81	*59%*	364 797	114	*44%*
Khnar	2 349	178 649	49	*33 %*	560 921	209	*58%*	875 369	290	*47%*
Veal	2 633	196 276	54	*34 %*	619 827	233	*59%*	966 519	324	*48%*
Roveang	2 527	189 580	52	*34 %*	598 342	224	*58%*	932 577	311	*48%*
Phdau Chum Lech	2 610	194 623	54	*34 %*	615 055	231	*59%*	958 759	321	*48%*
Skon	2 619	195 360	54	*34 %*	616 953	232	*59%*	961 956	322	*48%*
Phdau Chum Kaeut	2 869	210 526	59	*35 %*	669 023	254	*59%*	1 042 522	352	*49%*
Ta Saen	2 681	211 556	55	*32 %*	649 347	238	*57%*	1 012 975	329	*47%*
		7 019 429		***33%***	**21 976 561**		***58%***	**35 733 295**		***45%***
Dambae										
Tuol Pras	241	25 269	5	*25 %*	66 345	22	*50%*	103 624	30	*41%*
Chrey Phluk	222	24 175	5	*24 %*	62 439	20	*49%*	97 694	27	*40%*
Sieng Khveang	246	25 448	5	*24 %*	67 322	22	*51%*	105 635	30	*41%*
Veal Touch	1 818	137 527	37	*34 %*	450 701	163	*56%*	704 567	226	*46%*
Andoung Lngieng	300	28 624	6	*26 %*	78 175	26	*53%*	123 153	37	*43%*
Bos Khnor	1 516	118 842	31	*32 %*	358 040	134	*58%*	607 487	190	*44%*
Pralaoh	317	29 647	6	*27 %*	81 915	28	*53%*	128 168	39	*44%*
Svay Kambet	1 615	124 872	33	*33 %*	379 081	143	*59%*	639 237	202	*45%*
Chi Theang	5 529	373 302	111	*38 %*	1 220 882	484	*63%*	1 897 357	669	*52%*
Sampoar	1 720	131 532	35	*33 %*	430 414	154	*55%*	673 088	215	*45%*
Ta Kaev	262	26 435	5	*25 %*	70 362	23	*51%*	110 559	32	*42%*
Krasang	1 604	124 064	33	*33 %*	376 373	141	*59%*	635 679	201	*45%*
Kakaoh	305	29 218	6	*27 %*	79 795	27	*53%*	124 520	37	*43%*
Trapeang Chrey	471	39 305	10	*31 %*	113 809	41	*57%*	190 522	59	*44%*
Trapeang Chhuk	421	36 272	9	*30 %*	103 289	37	*56%*	161 838	51	*46%*
Neang Teut	386	34 190	8	*29 %*	96 342	34	*55%*	150 340	47	*45%*
Tuol Sambour	523	42 410	11	*31 %*	124 496	46	*58%*	207 679	65	*45%*
Chambak	397	34 583	8	*29 %*	98 406	35	*56%*	153 898	48	*46%*
Pongro	495	40 578	10	*31 %*	118 692	43	*57%*	198 463	62	*44%*
Svay Popeah	487	40 292	10	*31 %*	117 494	43	*58%*	196 000	61	*44%*
Trapeang Ruessei	568	45 264	11	*32 %*	142 074	51	*55%*	253 847	72	*40%*
Koun Trom	385	34 154	8	*29 %*	96 286	34	*55%*	150 250	47	*45%*
Chhung Ta Sau	552	44 277	11	*32 %*	130 356	48	*58%*	216 986	69	*45%*
Sangkom	611	48 047	12	*33 %*	150 863	55	*56%*	267 807	78	*40%*
Chi Trun	604	47 382	12	*32 %*	149 720	54	*56%*	265 435	77	*40%*
Ta Meakh Chas	455	38 318	9	*30 %*	110 769	40	*57%*	185 598	57	*43%*
Stueng Ta Thok	514	42 088	10	*32 %*	122 599	45	*58%*	204 483	64	*44%*
Khcheay	729	58 138	15	*32 %*	175 111	65	*57%*	273 461	90	*47%*
Thnal	720	57 401	15	*32 %*	173 857	64	*57%*	270 908	89	*47%*
Srae Prang	1 320	94 214	26	*36 %*	317 411	117	*57%*	544 439	167	*43%*
Kampraeus	802	62 408	16	*33 %*	190 514	71	*58%*	297 643	99	*48%*
Cheach Kaeut	652	50 343	13	*33 %*	159 486	58	*57%*	280 763	82	*41%*
Choam Trakuon	919	69 498	19	*33 %*	214 707	81	*59%*	367 078	114	*44%*
Veal Andaeuk	828	64 168	17	*33 %*	196 152	73	*58%*	305 855	102	*48%*
Svay Pak	590	46 466	12	*32 %*	146 846	53	*56%*	260 872	75	*40%*
Trapeang Ruessei	1 406	112 003	29	*32 %*	335 634	125	*58%*	571 716	177	*43%*
Trapeang Srangae	866	66 357	18	*33 %*	203 965	77	*59%*	317 805	106	*48%*
Khley	982	73 411	20	*34 %*	228 046	87	*60%*	386 969	122	*45%*
Trabaek	971	73 017	20	*34 %*	226 038	86	*60%*	383 592	121	*45%*
Me Sar	1 011	75 278	20	*34 %*	233 961	89	*60%*	396 457	125	*45%*
Srae Choam	939	71 043	19	*34 %*	219 313	83	*59%*	373 189	117	*44%*
Chheu Teal Chrum	1 240	89 278	25	*35 %*	300 976	110	*57%*	518 799	157	*42%*
Char Thum	714	57 186	15	*32 %*	172 181	63	*57%*	268 807	88	*47%*
Trapeang Pring	1 260	90 408	25	*35 %*	305 581	112	*57%*	524 910	160	*42%*
Ta Meakh Thmei	1 706	130 617	35	*33 %*	427 540	153	*55%*	668 525	213	*45%*
Chambak	1 262	90 480	25	*35 %*	305 692	112	*57%*	525 734	160	*42%*
Kouk Char	3 417	244 234	70	*36 %*	782 928	301	*60%*	1 218 159	417	*50%*
Kampong Reang	1 819	137 563	37	*34 %*	451 455	163	*56%*	704 748	226	*46%*

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Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Srae Kak	1 599	123 885	33	*33 %*	375 396	141	*59%*	633 669	200	*45%*
Khnor	1 420	112 918	29	*32 %*	338 508	126	*58%*	576 279	179	*44%*
Srama	1 498	117 783	31	*32 %*	354 888	133	*58%*	601 738	188	*44%*
Kouk Sralau	1 728	131 819	35	*33 %*	432 256	155	*55%*	675 460	216	*45%*
Tuek Chrov	1 561	121 696	32	*33 %*	367 583	138	*59%*	621 718	196	*44%*
Cheach Cheung	1 437	113 941	29	*32 %*	342 303	127	*58%*	582 028	181	*44%*
Chey Sambatt	1 634	125 967	33	*33 %*	382 987	144	*59%*	645 257	204	*45%*
Cheach Thum	1 826	137 813	37	*34 %*	452 543	164	*56%*	707 029	227	*46%*
Ta Ream	1 492	117 568	31	*32 %*	353 157	132	*58%*	599 547	187	*44%*
Srae Veaeng	1 585	122 969	32	*33 %*	372 466	140	*59%*	629 015	198	*45%*
Dambae	2 072	152 836	42	*34 %*	503 747	185	*57%*	786 410	257	*47%*
Ph'av	2 216	170 572	46	*33 %*	533 633	197	*57%*	832 211	274	*47%*
Banghaeur Khlaeng	2 395	181 539	50	*34 %*	570 521	213	*58%*	889 691	295	*48%*
Ponleak	2 287	174 772	47	*33 %*	548 226	204	*58%*	855 388	282	*47%*
Krasang	3 115	225 549	64	*35 %*	720 171	275	*60%*	1 121 169	381	*49%*
Kouk Srok	2 704	200 475	56	*34 %*	635 064	240	*59%*	989 052	332	*48%*
		5 911 728		***33%***	**18 447 882**		***58%***	**29 960 004**		***46%***
Kampong Cham										
Chamkar Khpob	198	22 487	4	*22 %*	56 912	18	*47%*	89 664	24	*39%*
Phum Dabmuoy	822	63 539	17	*33 %*	195 120	73	*58%*	303 754	101	*48%*
Kampong Roling	479	39 591	10	*30 %*	115 652	42	*57%*	193 538	60	*44%*
Phum Dabbei	565	45 157	11	*32 %*	141 264	50	*55%*	252 842	72	*39%*
Veal Sbov	621	48 405	12	*33 %*	152 872	55	*56%*	271 184	79	*41%*
Phum Dabpram	1 015	75 421	20	*34 %*	234 882	90	*60%*	397 642	126	*45%*
La Edth	617	48 261	12	*33 %*	152 594	55	*56%*	269 998	78	*41%*
Phum Dabpir	760	60 076	16	*32 %*	181 781	67	*58%*	283 773	94	*47%*
Boeng Kok Muoy	740	58 531	15	*32 %*	177 819	66	*58%*	277 019	91	*47%*
Chong Thnal Pir	785	61 385	16	*32 %*	186 719	69	*58%*	291 804	97	*48%*
Phum Dabbuon	915	69 355	19	*34 %*	214 430	81	*59%*	365 802	114	*44%*
Phum Pram	1 071	79 084	22	*35 %*	246 491	94	*60%*	416 076	133	*46%*
Phum Prambei	1 112	81 380	22	*35 %*	255 113	98	*60%*	429 031	137	*46%*
Phum Prambuon	1 084	79 964	22	*35 %*	249 309	96	*60%*	419 814	134	*46%*
Phum Dab	914	69 319	19	*34 %*	213 675	81	*59%*	364 978	114	*44%*
Chong Thnal Muoy	1 141	83 247	23	*35 %*	280 579	102	*56%*	487 049	146	*41%*
Preaek Chik	1 078	79 334	22	*35 %*	247 578	95	*60%*	417 623	133	*46%*
Preaek Chan	1 267	91 073	25	*36 %*	306 669	112	*57%*	527 101	160	*42%*
Phum Prampir	982	73 411	20	*34 %*	228 046	87	*60%*	386 969	122	*45%*
Neang Konghing	1 294	92 454	26	*35 %*	312 418	115	*57%*	536 227	164	*43%*
Chrouy Thma	1 601	123 957	33	*33 %*	376 151	141	*59%*	634 583	200	*45%*
Phum Buon	1 581	122 826	32	*33 %*	371 545	139	*59%*	627 829	198	*44%*
Memay	1 526	119 614	31	*33 %*	360 692	135	*59%*	610 954	192	*44%*
Boeng Kok Pir	1 964	146 484	40	*34 %*	481 452	176	*56%*	751 463	244	*46%*
Boeng Snay	2 144	166 337	45	*33 %*	518 396	191	*57%*	809 034	265	*47%*
Boeng Basak	2 019	149 696	41	*34 %*	492 305	180	*57%*	768 982	250	*46%*
Roka Leu	2 092	153 967	42	*34 %*	507 709	187	*57%*	792 520	259	*47%*
Roka Kraom	3 093	224 347	63	*35 %*	715 455	273	*60%*	1 114 144	378	*49%*
Phum Bei	2 899	212 429	59	*35 %*	674 938	256	*59%*	1 051 920	355	*49%*
Phum Muoy	3 004	230 993	61	*33 %*	716 177	266	*58%*	1 116 990	368	*48%*
Phum Pir	3 579	254 178	73	*36 %*	816 720	315	*61%*	1 270 624	436	*50%*
Phum Prammuoy	3 981	278 515	80	*36 %*	899 929	350	*61%*	1 399 544	484	*50%*
		3 504 817		***34%***	**11 081 392**		***59%***	**17 930 475**		***46%***
Kampong Siem										
Pongro	306	29 254	6	*27 %*	79 851	27	*53%*	124 610	37	*43%*
Sya	330	30 527	7	*27 %*	84 734	29	*54%*	132 550	40	*44%*
Kouk Totea	302	29 111	6	*27 %*	78 930	27	*53%*	123 424	37	*43%*
Sdach Non	378	33 489	8	*28 %*	94 500	33	*55%*	147 878	46	*45%*
Vihear	435	37 187	9	*30 %*	106 163	38	*56%*	165 758	53	*46%*

LOAD FORECAST

Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Ampil Kranhanh	434	37 152	9	*30 %*	106 108	38	*56%*	165 667	53	*46%*
Ou Thnong	489	40 364	10	*31 %*	117 660	43	*57%*	196 362	61	*44%*
Prathang	575	45 514	12	*32 %*	143 217	51	*55%*	256 128	73	*40%*
Andoung Svay	517	42 195	11	*31 %*	123 464	45	*58%*	205 578	64	*44%*
Pongro	518	42 231	11	*31 %*	123 520	45	*58%*	205 669	64	*44%*
Trean	504	41 315	10	*31 %*	120 590	44	*58%*	201 015	63	*44%*
Andoung Pou	580	46 108	12	*32 %*	144 193	52	*55%*	257 495	74	*40%*
Tuol Trach	637	49 392	13	*33 %*	156 556	57	*56%*	276 109	81	*41%*
Poun	515	42 124	10	*32 %*	123 298	45	*58%*	204 573	64	*44%*
Kaoh Kok Ka	382	33 632	8	*28 %*	95 421	34	*55%*	149 154	47	*45%*
Kien Chrey Krau	501	41 208	10	*31 %*	120 423	44	*58%*	200 654	63	*44%*
Thmei	689	52 496	14	*33 %*	167 187	61	*57%*	292 532	87	*42%*
Trapeang Ampil	637	49 392	13	*33 %*	156 556	57	*56%*	276 109	81	*41%*
Tuol Popel	741	58 567	15	*32 %*	177 874	66	*58%*	277 753	91	*47%*
Chrak Sdau	653	50 379	13	*33 %*	159 597	58	*56%*	281 677	83	*41%*
Angkuonh Dei	1 353	96 224	27	*36 %*	324 891	120	*58%*	555 022	171	*43%*
Phum Pir	576	45 550	12	*32 %*	143 916	52	*55%*	256 219	73	*40%*
Cheung Kouk	688	52 461	14	*33 %*	167 132	61	*57%*	292 442	87	*42%*
Boeng Babos	629	49 106	13	*33 %*	154 714	56	*56%*	273 647	80	*41%*
Trapeang Tras	675	51 581	13	*33 %*	164 313	60	*57%*	288 612	85	*41%*
Trapeang Thma	664	51 187	13	*33 %*	162 249	59	*57%*	284 411	84	*41%*
Sralau	796	62 194	16	*33 %*	189 427	71	*58%*	295 362	98	*48%*
Trapeang Ruessei	691	52 568	14	*33 %*	167 354	61	*57%*	293 537	87	*42%*
Chranieng	755	59 482	15	*32 %*	180 804	67	*58%*	282 406	93	*47%*
Prey Phdau	665	51 223	13	*33 %*	162 304	59	*57%*	285 145	84	*41%*
Svay Chrum	383	34 083	8	*29 %*	95 476	34	*55%*	149 244	47	*45%*
Enteak Nel	750	59 304	15	*32 %*	179 828	67	*58%*	280 396	92	*47%*
Chamkar Samseb	691	52 568	14	*33 %*	167 354	61	*57%*	293 537	87	*42%*
Kouk Kream	775	61 028	16	*33 %*	184 766	69	*58%*	288 517	95	*48%*
Kaoh Chas	352	32 144	7	*28 %*	89 506	31	*55%*	139 666	43	*45%*
Thmei	768	60 362	16	*32 %*	183 623	68	*58%*	286 235	94	*47%*
Ro'ang Leu	817	63 360	17	*33 %*	193 444	72	*58%*	302 297	100	*48%*
Roka Koy Ka	713	57 150	15	*32 %*	172 070	63	*57%*	268 536	88	*47%*
Spean Thmei	724	57 544	15	*32 %*	174 134	64	*57%*	272 094	89	*47%*
Ampil Chrum	851	65 406	17	*33 %*	200 979	75	*59%*	313 061	104	*48%*
Banteay Thmei	756	59 518	15	*32 %*	180 860	67	*58%*	282 497	93	*47%*
Kampong Trom	479	39 591	10	*30 %*	115 652	42	*57%*	193 538	60	*44%*
Kaoh Prak Leu	874	67 058	18	*33 %*	205 807	77	*59%*	320 267	107	*48%*
Kaoh Roka Krau	931	70 342	19	*34 %*	217 470	82	*59%*	370 727	116	*44%*
Kien Chrey Knong	724	57 544	15	*32 %*	174 134	64	*57%*	272 094	89	*47%*
Kaoh Prolung	492	40 471	10	*31 %*	118 470	43	*58%*	197 367	61	*44%*
Trapeang Char	959	72 173	19	*34 %*	223 274	85	*59%*	379 943	119	*45%*
Tuol Chambak	938	71 007	19	*34 %*	218 558	83	*59%*	372 918	117	*45%*
Kaoh Prak Kraom	682	52 246	14	*33 %*	165 456	61	*57%*	290 984	86	*42%*
Kaoh Paen Kha	361	32 466	7	*28 %*	91 403	32	*55%*	142 219	44	*45%*
Prey Kuy	840	65 012	17	*33 %*	198 272	74	*58%*	309 503	103	*48%*
Phum Muoy	638	49 427	13	*33 %*	156 611	57	*56%*	276 199	81	*41%*
Veal Khsach	966	72 424	19	*34 %*	224 362	85	*59%*	381 491	120	*45%*
Phum Buon	907	69 068	18	*34 %*	212 587	80	*59%*	362 696	113	*44%*
Kaoh Kok Kha	833	64 347	17	*33 %*	197 129	74	*58%*	307 131	102	*48%*
Ta Khong	862	66 214	18	*33 %*	203 044	76	*59%*	316 619	106	*48%*
Kampong Trom Leu	469	39 233	10	*31 %*	113 698	41	*57%*	190 251	59	*44%*
Chonghuk	875	67 094	18	*33 %*	205 862	77	*59%*	321 001	107	*48%*
Tuol Roka	842	65 084	17	*33 %*	199 082	75	*59%*	310 508	103	*48%*
Romeas	892	68 117	18	*34 %*	209 602	79	*59%*	357 952	111	*44%*
Tuol Beng	834	64 383	17	*33 %*	197 240	74	*58%*	307 402	102	*48%*
Veal Kriel	1 018	75 943	21	*34 %*	235 693	90	*60%*	398 648	126	*45%*
Kong Moha	987	74 005	20	*34 %*	229 078	87	*60%*	388 426	122	*45%*
Trapeang Chrey	930	70 306	19	*34 %*	217 359	82	*59%*	369 812	115	*44%*
Phum Prampir	1 010	75 242	20	*34 %*	233 850	89	*60%*	395 542	125	*45%*

LOAD FORECAST

Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Phum Bei	947	71 329	19	*34 %*	220 511	84	*59%*	375 561	118	*45%*
Kaoh Roka Knong	1 120	82 081	23	*35 %*	256 955	99	*60%*	431 493	138	*46%*
Trapeang Ta Sokh	1 006	75 099	20	*34 %*	232 929	89	*60%*	394 356	125	*45%*
Chheu Teal Srot	1 111	81 344	22	*35 %*	254 359	98	*60%*	428 116	137	*46%*
Kaoh Prak Knong	1 087	80 071	22	*35 %*	249 531	96	*60%*	420 910	134	*46%*
Kaoh Paen Kho	515	42 124	10	*32 %*	123 298	45	*58%*	204 573	64	*44%*
Chheu Teal Srot	1 066	78 490	21	*34 %*	245 458	94	*60%*	413 975	132	*46%*
Preaek Yuon	1 074	79 191	22	*35 %*	247 301	95	*60%*	416 437	133	*46%*
Kokor Muoy	1 087	80 071	22	*35 %*	249 531	96	*60%*	420 910	134	*46%*
Trakuon	1 143	83 319	23	*35 %*	280 690	102	*56%*	487 320	146	*41%*
Phum Pram	1 088	80 107	22	*35 %*	250 230	96	*60%*	421 091	134	*46%*
Paen	1 002	74 956	20	*34 %*	232 008	88	*60%*	393 079	124	*45%*
Roliek	1 147	83 462	23	*35 %*	281 611	102	*56%*	488 506	146	*42%*
Rumlech	1 183	85 994	24	*35 %*	289 257	105	*57%*	500 185	150	*42%*
Ampil Kraom	1 496	117 711	31	*32 %*	354 078	132	*58%*	600 733	188	*44%*
Kaoh Paen Ka	497	41 065	10	*31 %*	119 502	44	*58%*	199 468	62	*44%*
Ou Svay	1 079	79 370	22	*35 %*	248 333	95	*60%*	418 538	134	*46%*
Phum Prammuoy	1 309	93 406	26	*36 %*	315 403	116	*57%*	540 971	166	*43%*
Khael Chey	1 100	80 951	22	*35 %*	252 350	97	*60%*	424 739	136	*46%*
Ro'ang Kraom	1 321	94 250	26	*36 %*	318 166	117	*57%*	544 619	167	*43%*
Anlong Snouk	1 258	90 337	25	*35 %*	304 771	112	*57%*	524 548	160	*42%*
Kaoh Dach	659	50 594	13	*33 %*	160 629	59	*56%*	283 135	83	*41%*
Kaoh Kol	646	50 129	13	*33 %*	158 454	58	*56%*	279 305	82	*41%*
Krouch Saeuch	1 513	118 734	31	*32 %*	357 873	134	*58%*	606 482	190	*44%*
Dambang Daek	1 373	97 354	27	*36 %*	328 853	122	*58%*	561 133	173	*43%*
Lvea Ter	1 303	93 191	26	*36 %*	314 315	116	*57%*	538 780	165	*43%*
Phum Prambei	1 493	117 604	31	*32 %*	353 911	132	*58%*	599 727	187	*44%*
Krala	1 479	116 688	30	*32 %*	350 982	131	*58%*	595 074	186	*44%*
Kdei Boeng	1 363	96 997	27	*36 %*	326 844	121	*58%*	558 399	172	*43%*
Thmei	1 669	128 049	34	*33 %*	389 878	147	*59%*	656 665	209	*45%*
Prasat	1 438	113 977	29	*32 %*	342 359	127	*58%*	582 118	181	*44%*
Kokor Pir	1 507	118 520	31	*33 %*	356 786	133	*58%*	604 290	189	*44%*
Prey Chakkrei	1 459	115 558	30	*32 %*	346 376	129	*58%*	588 963	183	*44%*
Prasam	1 653	127 061	34	*33 %*	386 838	146	*59%*	651 097	206	*45%*
Trapeang Kak	1 627	125 716	33	*33 %*	381 200	143	*59%*	642 885	203	*45%*
Ta Meang	1 862	139 931	38	*34 %*	460 189	167	*56%*	718 618	232	*46%*
Kampong Krabei	1 551	120 923	32	*33 %*	365 630	137	*59%*	618 432	194	*44%*
Moan Haeur	1 697	129 880	34	*33 %*	425 587	152	*55%*	665 148	212	*45%*
Hanchey	1 540	120 530	32	*33 %*	363 566	136	*59%*	614 874	193	*44%*
Ou Chhleung	1 785	135 517	36	*34 %*	443 920	160	*56%*	693 983	222	*46%*
Romul	2 519	189 294	52	*34 %*	596 500	224	*58%*	929 472	310	*48%*
Andoung Chraoh	2 283	186 947	47	*31 %*	566 415	203	*56%*	885 331	282	*46%*
Srak	3 717	262 434	75	*36 %*	844 930	327	*61%*	1 314 967	453	*50%*
Thma Koul	2 325	177 376	48	*33 %*	556 038	207	*58%*	867 338	287	*47%*
Lpeak	2 769	204 460	57	*34 %*	648 570	245	*59%*	1 010 038	340	*48%*
Ampil Leu	4 007	280 275	81	*36 %*	904 923	352	*61%*	1 407 755	487	*50%*
		8 586 944		***33%***	**26 740 517**		***58%***	**44 180 953**		***45%***
Kang Meas										
Tuek Chenh	266	26 578	5	*25 %*	71 284	24	*51%*	111 745	33	*42%*
Tuol Vihear	541	43 468	11	*31 %*	128 347	47	*58%*	213 519	67	*45%*
Khpob Kraom	572	45 407	11	*32 %*	142 995	51	*55%*	255 033	73	*40%*
Kaoh Ta Ngao Ti	516	42 159	10	*31 %*	123 353	45	*58%*	205 307	64	*45%*
Chrouy Krabau Ti	710	57 043	15	*32 %*	171 904	63	*57%*	267 531	87	*47%*
Boeng Sang Kaeut	750	59 304	15	*32 %*	179 828	67	*58%*	280 396	92	*47%*
Varint Ti Muoy	721	57 437	15	*32 %*	173 913	64	*57%*	270 999	89	*47%*
Chrouy Krabau Ti	810	63 109	17	*33 %*	192 357	72	*58%*	300 015	100	*48%*
Svay Poan Ti Muoy	920	69 533	19	*33 %*	215 406	81	*59%*	367 169	114	*44%*
Preaek Andoung	699	53 269	14	*33 %*	169 196	62	*57%*	295 999	88	*42%*
Preaek Liv Ti Bei	727	58 066	15	*32 %*	175 000	65	*57%*	273 190	90	*47%*

LOAD FORECAST

Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Ou Svay Kaeut	784	61 350	16	*32 %*	186 664	69	*58%*	291 070	96	*48%*
Boeng Sang Lech	838	64 526	17	*33 %*	198 161	74	*58%*	308 588	103	*48%*
Khchau Ti Muoy	856	66 000	18	*33 %*	201 956	76	*59%*	314 337	105	*48%*
Phum Ti Prambei	863	66 250	18	*33 %*	203 099	76	*59%*	316 709	106	*48%*
Kaoh Ta Ngao Ti	646	50 129	13	*33 %*	158 454	58	*56%*	279 305	82	*41%*
Preaek Liv Ti Pir	781	61 242	16	*33 %*	186 442	69	*58%*	290 618	96	*48%*
Roka Koy Kha	811	63 145	17	*33 %*	192 412	72	*58%*	300 196	100	*48%*
Angkor Ban Ti	876	67 130	18	*33 %*	205 918	77	*59%*	321 092	107	*48%*
Phum Ti Prammuoy	938	71 007	19	*34 %*	218 558	83	*59%*	372 918	117	*45%*
Sach Sou	870	66 500	18	*33 %*	204 886	77	*59%*	318 991	107	*48%*
Phum Ti Prampir	854	65 513	17	*33 %*	201 201	75	*59%*	314 156	105	*48%*
Preaek Liv Ti Muoy	1 001	74 505	20	*34 %*	231 953	88	*60%*	392 989	124	*45%*
Andoung Dai	942	71 150	19	*34 %*	219 479	83	*59%*	374 104	117	*45%*
Pou Sala Ti Muoy	988	74 040	20	*34 %*	229 134	87	*60%*	389 250	123	*45%*
Phum Ti Buon	1 174	85 257	24	*35 %*	287 359	104	*56%*	497 632	150	*42%*
Chamkar Ovloek	954	71 994	19	*34 %*	222 242	84	*59%*	377 842	118	*45%*
Kaoh Ta Ngao Ti	806	62 551	16	*33 %*	191 436	71	*58%*	298 829	99	*48%*
Phum Ti Prambuon	1 033	76 480	21	*34 %*	238 678	91	*60%*	403 392	128	*45%*
Lvea Leu	1 076	79 263	22	*35 %*	247 467	95	*60%*	417 352	133	*46%*
Svay Poan Ti Pir	868	66 429	18	*33 %*	204 076	77	*59%*	318 720	107	*48%*
Kok Krabei	1 148	83 498	23	*35 %*	282 365	102	*56%*	489 421	147	*42%*
Peam Knong	935	70 485	19	*34 %*	218 391	83	*59%*	371 913	116	*44%*
Preaek Krabau	1 099	80 500	22	*35 %*	252 295	97	*60%*	424 649	136	*46%*
Khpob Leu	1 057	78 168	21	*35 %*	243 561	93	*60%*	411 422	131	*46%*
Varint Ti Bei	973	73 089	20	*34 %*	226 149	86	*59%*	383 772	121	*45%*
Pou Sala Ti Pir	1 001	74 505	20	*34 %*	231 953	88	*60%*	392 989	124	*45%*
Preaek Liv Ti Buon	1 002	74 956	20	*34 %*	232 008	88	*60%*	393 079	124	*45%*
Angkor Ban Ti	994	74 255	20	*34 %*	230 166	88	*60%*	390 707	123	*45%*
Phum Thmei Ka	934	70 449	19	*34 %*	217 637	82	*59%*	371 732	116	*44%*
Kdei	919	69 498	19	*33 %*	214 707	81	*59%*	367 078	114	*44%*
Andoung Ta Ong	1 038	77 074	21	*34 %*	239 654	92	*60%*	404 758	128	*45%*
Angkor Ban Ti Pir	1 050	77 503	21	*34 %*	241 774	92	*60%*	408 407	130	*45%*
Angkor Ban Ti	1 042	77 217	21	*34 %*	240 575	92	*60%*	405 944	129	*45%*
Khchau Ti Pir	970	72 982	20	*34 %*	225 283	86	*59%*	382 677	120	*45%*
Varint Ti Pir	959	72 173	19	*34 %*	223 274	85	*59%*	379 943	119	*45%*
Sdau	1 072	79 119	22	*35 %*	246 546	94	*60%*	416 166	133	*46%*
Damnak Svay	983	73 447	20	*34 %*	228 157	87	*60%*	387 240	122	*45%*
Ou Kandaol	1 156	84 199	23	*35 %*	283 564	103	*56%*	491 793	147	*42%*
Souken	1 009	75 206	20	*34 %*	233 795	89	*60%*	395 451	125	*45%*
Khchau Ti Bei	1 302	93 155	26	*36 %*	314 260	116	*57%*	538 599	165	*43%*
Angkor Ban Ti	1 148	83 498	23	*35 %*	282 365	102	*56%*	489 421	147	*42%*
Phum Ti Pram	1 167	85 007	24	*35 %*	286 216	104	*56%*	495 260	149	*42%*
Kanlaeng Run	1 241	89 314	25	*35 %*	301 031	110	*57%*	518 889	157	*42%*
Anlong Kokir	1 122	82 153	23	*35 %*	276 672	100	*56%*	480 385	143	*41%*
Lvea Kraom	1 263	90 930	25	*36 %*	305 748	112	*57%*	525 915	160	*42%*
Phun Ti Muoy	1 428	113 619	29	*32 %*	340 350	126	*58%*	578 651	180	*44%*
Damnak Chrey	1 126	82 296	23	*35 %*	277 593	100	*56%*	481 661	144	*41%*
Angkor Ban Ti	1 160	84 342	23	*35 %*	284 485	103	*56%*	493 069	148	*42%*
Angkor Ban Ti	1 281	91 989	26	*36 %*	309 599	114	*57%*	531 754	162	*43%*
Peam Chi Kang	1 106	81 165	22	*35 %*	253 382	97	*60%*	426 840	137	*46%*
Roka ar	1 382	98 091	28	*36 %*	330 751	122	*58%*	564 329	174	*43%*
Anlong Kokir	1 406	112 003	29	*32 %*	335 634	125	*58%*	571 716	177	*43%*
Phum Ti Bei	1 395	98 971	28	*36 %*	333 569	124	*58%*	568 158	176	*43%*
Anlong Ak Lech	1 137	83 104	23	*35 %*	279 658	101	*56%*	485 863	145	*41%*
Ou Svay Lech	1 649	126 918	34	*33 %*	385 917	145	*59%*	649 911	206	*45%*
Boeng Totea	1 221	88 183	25	*35 %*	297 070	108	*57%*	512 779	155	*42%*
Svay Sranaoh Ti Pir	1 467	115 844	30	*32 %*	348 218	130	*58%*	591 426	184	*44%*
Anlong Ak Kaeut	1 159	84 306	23	*35 %*	284 374	103	*56%*	492 154	147	*42%*
Preaek Pranak	1 228	88 434	25	*35 %*	298 856	109	*57%*	515 151	156	*42%*
Svay Sranaoh Ti	1 369	97 211	27	*36 %*	327 932	121	*58%*	559 947	173	*43%*

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Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Damnak L'et	1 518	118 913	31	*32 %*	358 850	134	*58%*	607 848	190	*44%*
Ou Popel	1 548	120 816	32	*33 %*	364 765	137	*59%*	617 246	194	*44%*
Phum Ti Pir	1 433	113 798	29	*32 %*	341 382	127	*58%*	580 752	180	*44%*
Preaek Kruos	1 530	119 757	31	*33 %*	361 613	135	*59%*	612 140	192	*44%*
Reay Pay Kraom	1 661	127 762	34	*33 %*	388 680	147	*59%*	653 559	207	*45%*
Angkor Ban Ti Bei	1 668	128 013	34	*33 %*	389 823	147	*59%*	655 841	208	*45%*
Tuol Bei	1 921	143 701	39	*34 %*	472 019	172	*56%*	737 503	239	*46%*
Angkor Ban Ti	1 772	134 637	36	*34 %*	441 101	159	*55%*	689 601	221	*45%*
Sambuor Meas Ka	1 574	122 576	32	*33 %*	370 458	139	*59%*	626 282	197	*45%*
Sambuor Meas Kha	1 647	126 847	34	*33 %*	385 806	145	*59%*	649 639	206	*45%*
Svay Ta Haen	1 804	136 612	37	*34 %*	447 826	162	*56%*	700 004	225	*46%*
Thlok Chrov	1 810	136 826	37	*34 %*	449 502	162	*56%*	701 461	225	*46%*
Pongro	1 914	143 451	39	*34 %*	470 876	171	*56%*	735 131	238	*46%*
Preaek Koy	1 922	143 737	39	*34 %*	472 718	172	*56%*	737 593	239	*46%*
Reay Pay Leu	2 038	150 790	41	*34 %*	496 855	182	*57%*	775 002	252	*47%*
Boeng Trav	1 927	143 916	39	*34 %*	473 750	173	*56%*	739 694	239	*46%*
PhumThmei Kha	3 148	227 559	64	*35 %*	726 952	278	*60%*	1 131 662	385	*49%*
		7 688 401		***34%***	**24 351 668**		***58%***	**40 430 970**		***45%***
Kaoh Soutin										
Preaek Ta Nong	334	31 085	7	*28 %*	85 655	30	*54%*	133 827	41	*44%*
Pongro Lech	379	33 525	8	*28 %*	94 555	33	*55%*	147 968	46	*45%*
Roat Muni	344	31 443	7	*28 %*	87 664	30	*54%*	137 204	42	*45%*
Preaek	294	40 729	19	*18 %*	96 198	33	*42%*	152 091	52	*34%*
Bat Srei Totueng	484	40 185	10	*31 %*	116 628	42	*57%*	194 905	61	*44%*
Tuol Kambot	389	34 297	8	*29 %*	97 207	34	*56%*	151 436	47	*45%*
Pak Nam	539	43 397	11	*32 %*	128 181	47	*58%*	212 513	67	*45%*
Pongro	483	40 149	10	*31 %*	116 573	42	*57%*	194 814	61	*44%*
Pongro Kaeut	649	50 236	13	*33 %*	158 676	58	*56%*	279 757	82	*41%*
Phum Pram	689	52 496	14	*33 %*	167 187	61	*57%*	292 532	87	*42%*
Preaek Ta Nong	586	46 323	12	*32 %*	145 924	52	*56%*	259 686	75	*40%*
Chong Preaek	539	43 397	11	*32 %*	128 181	47	*58%*	212 513	67	*45%*
Kampong Sdei	726	58 030	15	*32 %*	174 945	65	*57%*	273 099	90	*47%*
Chrouy Saset	461	38 532	9	*30 %*	111 856	40	*57%*	187 789	58	*44%*
Phum Dabmuoy	515	42 124	10	*32 %*	123 298	45	*58%*	204 573	64	*44%*
Preaek Ta Nong	630	49 141	13	*33 %*	154 769	56	*56%*	273 737	80	*41%*
Kampong Ov	637	49 392	13	*33 %*	156 556	57	*56%*	276 109	81	*41%*
Daeum Sdau	657	50 522	13	*33 %*	160 518	59	*57%*	282 863	83	*41%*
Preaek Ta Nong	664	51 187	13	*33 %*	162 249	59	*57%*	284 411	84	*41%*
Preaek Ta Nong	589	46 430	12	*32 %*	146 790	53	*56%*	260 782	75	*40%*
Kampong Pnov	664	51 187	13	*33 %*	162 249	59	*57%*	284 411	84	*41%*
Phum Prambei	507	41 422	10	*31 %*	121 456	44	*58%*	202 111	63	*44%*
Damnak Pring Lech	493	40 507	10	*31 %*	118 581	43	*58%*	198 282	62	*44%*
Roka Kaong	625	60 866	21	*26 %*	172 903	56	*50%*	303 590	79	*36%*
Phum Dab	634	49 284	13	*33 %*	155 690	57	*56%*	275 013	80	*41%*
Phum Dabpir	563	45 085	11	*32 %*	141 097	50	*55%*	252 480	72	*40%*
Krapeu Korm	574	45 479	11	*32 %*	143 161	51	*55%*	256 038	73	*40%*
Preaek Ta Nong	786	61 421	16	*32 %*	187 474	70	*58%*	292 075	97	*48%*
Chi Haer	540	43 433	11	*32 %*	128 236	47	*58%*	212 694	67	*45%*
Tuol Theat	626	48 583	12	*32 %*	153 848	56	*56%*	272 551	79	*41%*
Anlong Doung	805	62 516	16	*33 %*	191 325	71	*58%*	297 914	99	*48%*
Phum Pir	650	50 272	13	*33 %*	159 375	58	*57%*	280 491	82	*41%*
Moha Leaph	588	46 394	12	*32 %*	146 035	52	*56%*	260 601	75	*40%*
Preaek Rumdeng	812	63 181	17	*33 %*	192 468	72	*58%*	300 286	100	*48%*
Phum Prammuoy	669	51 366	13	*33 %*	163 226	60	*57%*	286 421	85	*41%*
Tuol Kdol	833	64 347	17	*33 %*	197 129	74	*58%*	307 131	102	*48%*
Preaek Ta Nong	856	66 000	18	*33 %*	201 956	76	*59%*	314 337	105	*48%*
Preaek Ta Nong Pir	794	62 122	16	*33 %*	189 316	71	*58%*	294 537	97	*48%*
Preaek Ta Nong	967	72 459	19	*34 %*	225 117	85	*59%*	382 315	120	*45%*
Ambaeng Ches	658	50 558	13	*33 %*	160 573	59	*57%*	282 954	83	*41%*

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Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Peam	758	60 005	16	*32 %*	181 670	67	*58%*	282 858	93	*47%*
Thmei	669	51 366	13	*33 %*	163 226	60	*57%*	286 421	85	*41%*
Preaek Ta Nong	869	66 465	18	*33 %*	204 775	77	*59%*	318 810	107	*48%*
Phum Prampir	780	61 207	16	*33 %*	185 743	69	*58%*	289 884	96	*48%*
Kandal Khnhoung	884	67 416	18	*33 %*	207 760	78	*59%*	355 490	110	*44%*
Khnhoung Leu	996	74 326	20	*34 %*	230 976	88	*60%*	391 622	124	*45%*
Kaoh Chen Leu	1 230	88 920	25	*35 %*	298 967	109	*57%*	515 332	156	*42%*
Kampong Sdei	1 025	76 194	21	*34 %*	236 836	90	*60%*	401 020	127	*45%*
Lve Kraom	891	68 081	18	*34 %*	208 903	79	*59%*	357 862	111	*44%*
Preaek Ta Kae	812	75 500	23	*27 %*	211 578	72	*53%*	331 415	100	*43%*
Phum Dabbuon	1 008	75 171	20	*34 %*	233 096	89	*60%*	395 361	125	*45%*
Phum Bei	835	64 419	17	*33 %*	197 295	74	*58%*	308 136	103	*48%*
Chong Khnhoung	886	67 488	18	*33 %*	207 871	78	*59%*	355 761	110	*44%*
Preaek Ta Nong	960	72 209	19	*34 %*	223 330	85	*59%*	380 034	119	*45%*
Kampong	932	70 378	19	*34 %*	217 526	82	*59%*	370 817	116	*44%*
Roka Kaong	1 033	76 480	21	*34 %*	238 678	91	*60%*	403 392	128	*45%*
Preaek Rumdeng	985	73 518	20	*34 %*	228 268	87	*59%*	388 155	122	*45%*
Lve Leu	1 014	75 385	20	*34 %*	234 771	90	*60%*	397 462	126	*45%*
Angkor Chey Leu	942	71 150	19	*34 %*	219 479	83	*59%*	374 104	117	*45%*
Phum Buon	738	58 459	15	*32 %*	177 708	66	*58%*	276 748	91	*47%*
Moha Leaph	949	71 401	19	*34 %*	221 266	84	*59%*	376 476	118	*45%*
Preaek Ta Nong	1 034	76 516	21	*34 %*	238 733	91	*60%*	403 572	128	*45%*
Pak Nam	922	70 020	19	*34 %*	215 517	81	*59%*	367 350	115	*44%*
Phum Prambuon	1 337	95 237	27	*36 %*	321 207	118	*58%*	550 188	169	*43%*
Mohasiek Leu	975	73 160	20	*34 %*	226 315	86	*59%*	384 778	121	*45%*
Angkor Chey	1 147	83 462	23	*35 %*	281 611	102	*56%*	488 506	146	*42%*
Khpob	1 149	83 948	23	*35 %*	282 421	102	*56%*	489 511	147	*42%*
Mohasiek Kraom	1 153	84 091	23	*35 %*	283 342	103	*56%*	490 697	147	*42%*
Damnak Svay	1 109	93 592	24	*30 %*	273 358	98	*56%*	459 064	137	*43%*
Preaek Kol	1 354	96 260	27	*36 %*	324 947	120	*58%*	555 203	171	*43%*
Kampong Sdei Leu	1 413	112 668	29	*32 %*	336 777	125	*58%*	573 997	178	*44%*
Kampong Sdei	1 280	91 953	26	*36 %*	309 543	114	*57%*	531 664	162	*43%*
Samraong	1 096	80 393	22	*35 %*	251 429	96	*60%*	423 463	135	*46%*
Roka Kaong	1 093	80 286	22	*35 %*	251 207	96	*60%*	422 367	135	*46%*
Kampong Reab Leu	1 552	120 959	32	*33 %*	365 686	137	*59%*	619 166	195	*44%*
Kampong Reab	1 354	96 260	27	*36 %*	324 947	120	*58%*	555 203	171	*43%*
Phum Dabbei	1 502	117 926	31	*32 %*	355 809	133	*58%*	602 924	189	*44%*
Kaoh Chen Kraom	1 439	114 013	29	*32 %*	342 414	127	*58%*	582 209	181	*44%*
Damnak Pring	1 387	122 908	41	*29 %*	369 948	123	*52%*	627 953	175	*39%*
Veal	1 290	92 311	26	*36 %*	311 496	114	*57%*	534 951	163	*43%*
Moha Leaph	1 153	84 091	23	*35 %*	283 342	103	*56%*	490 697	147	*42%*
Preaek Ta Nong	1 406	112 003	29	*32 %*	335 634	125	*58%*	571 716	177	*43%*
Preaek Changkran	1 739	132 627	35	*33 %*	434 321	156	*55%*	679 018	217	*45%*
Phum Muoy	2 648	197 227	55	*34 %*	623 456	235	*59%*	971 263	325	*48%*
Tumpung	1 727	131 783	35	*33 %*	432 201	155	*55%*	675 369	216	*45%*
Phsar Thmei	1 835	138 550	37	*34 %*	454 496	164	*56%*	709 672	228	*46%*
		5 996 884		***33%***	**18 684 704**		***57%***	**31 286 502**		***44%***
Krouch Chhmar										
Tuol Ok	180	21 428	4	*21 %*	53 760	16	*47%*	84 558	23	*38%*
Krabei Kreak	543	43 540	11	*31 %*	129 102	48	*58%*	213 790	68	*45%*
Kaoh Phal	260	26 364	5	*25 %*	70 251	23	*51%*	110 288	32	*42%*
Mukh Phnum	493	40 507	10	*31 %*	118 581	43	*58%*	198 282	62	*44%*
Ta Kao	483	40 149	10	*31 %*	116 573	42	*57%*	194 814	61	*44%*
Chravak Daek	628	49 070	13	*33 %*	154 603	56	*56%*	273 466	80	*41%*
Ruom Vinh	598	47 167	12	*33 %*	148 044	53	*56%*	263 335	76	*40%*
Srah	574	45 479	11	*32 %*	143 161	51	*55%*	256 038	73	*40%*
Ti Buon	682	52 246	14	*33 %*	165 456	61	*57%*	290 984	86	*42%*
Kdol Kraom	848	65 298	17	*33 %*	200 114	75	*59%*	311 965	104	*48%*
Phum Ti Pir	836	64 454	17	*33 %*	197 351	74	*58%*	308 227	103	*48%*

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Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Kdol Leu	786	61 421	16	*32 %*	187 474	70	*58%*	292 075	97	*48%*
Kaoh Traeng	648	50 200	13	*33 %*	158 565	58	*56%*	279 577	82	*41%*
Tuol Roka	748	59 232	15	*32 %*	179 661	67	*58%*	280 125	92	*47%*
Kaoh Meun Nong	785	61 385	16	*32 %*	186 719	69	*58%*	291 804	97	*48%*
Bos Svay	463	38 604	9	*30 %*	111 967	40	*57%*	188 060	58	*43%*
Chuor Kandal	744	59 089	15	*32 %*	178 740	66	*58%*	278 205	91	*47%*
Ti Pram	885	67 452	18	*33 %*	207 816	78	*59%*	355 580	110	*44%*
Kdol Kandal	938	71 007	19	*34 %*	218 558	83	*59%*	372 918	117	*45%*
Kaoh Krabei	817	63 360	17	*33 %*	193 444	72	*58%*	302 297	100	*48%*
Phop Thmei	639	49 463	13	*33 %*	156 667	57	*56%*	277 024	81	*41%*
Phum Ti Bei	949	71 401	19	*34 %*	221 266	84	*59%*	376 476	118	*45%*
Baray	1 976	146 913	40	*34 %*	483 571	177	*56%*	755 112	245	*46%*
Phum Pir	1 046	77 360	21	*34 %*	241 497	92	*60%*	407 221	129	*45%*
Ti Muoy	1 168	85 043	24	*35 %*	286 327	104	*56%*	495 532	149	*42%*
Poes	1 140	83 211	23	*35 %*	280 523	102	*56%*	486 315	145	*41%*
Phum Ti Buon	1 778	134 852	36	*34 %*	442 777	160	*56%*	691 702	222	*46%*
Khsach Prachheh	1 156	84 199	23	*35 %*	283 564	103	*56%*	491 793	147	*42%*
Phum Ti Buon	1 047	77 395	21	*34 %*	241 608	92	*60%*	408 045	130	*45%*
Phum Ti Pir	1 535	119 936	31	*33 %*	362 590	136	*59%*	613 507	193	*44%*
Tuol Snuol	1 329	94 951	27	*36 %*	319 365	118	*57%*	547 082	168	*43%*
Phum Ti Pram	1 245	89 457	25	*35 %*	301 953	110	*57%*	520 166	158	*42%*
Ampil	1 195	86 423	24	*35 %*	292 020	106	*57%*	503 833	152	*42%*
Phka Doung	2 310	176 424	48	*33 %*	553 053	206	*58%*	862 594	285	*47%*
Daeum Chrey	1 066	78 490	21	*34 %*	245 458	94	*60%*	413 975	132	*46%*
Samraong	1 183	85 994	24	*35 %*	289 257	105	*57%*	500 185	150	*42%*
Phum Muoy	1 234	89 063	25	*35 %*	299 888	110	*57%*	516 608	157	*42%*
Phum Ti Muoy	1 242	89 349	25	*35 %*	301 731	110	*57%*	518 980	157	*42%*
Phum Pram	1 293	92 418	26	*35 %*	312 362	115	*57%*	535 403	164	*43%*
Phum Buon	1 595	123 742	33	*33 %*	374 475	141	*59%*	632 483	200	*45%*
Tuol Trach	1 418	112 847	29	*32 %*	337 753	125	*58%*	576 008	179	*44%*
Krouch Chhmar	1 177	85 365	24	*35 %*	288 225	105	*56%*	498 728	150	*42%*
Phum Ti Bei	1 670	128 499	34	*33 %*	390 633	147	*59%*	656 846	209	*45%*
Phum Ti Pir	1 292	92 383	26	*35 %*	311 663	114	*57%*	535 312	164	*43%*
Phum Ti Prammuoy	1 575	122 612	32	*33 %*	370 513	139	*59%*	626 372	197	*44%*
Phum Ti Muoy	1 551	120 923	32	*33 %*	365 630	137	*59%*	618 432	194	*44%*
Khsach Prachheh	1 476	116 581	30	*32 %*	350 116	131	*58%*	594 622	186	*44%*
Phum Ti Buon	1 682	128 928	34	*33 %*	422 657	151	*55%*	660 494	210	*45%*
Phum Bei	1 875	140 811	38	*34 %*	463 063	168	*56%*	722 537	233	*46%*
Ti Bei	1 888	141 691	38	*34 %*	465 238	169	*56%*	726 919	235	*46%*
Ti Pir	1 855	139 680	38	*34 %*	458 458	166	*56%*	716 426	231	*46%*
Phum Ti Prammuoy	1 838	138 658	37	*34 %*	455 306	165	*56%*	710 677	229	*46%*
Phum Ti Pram	1 749	132 985	35	*33 %*	436 274	157	*55%*	682 395	218	*45%*
Phum Ti Prampir	1 714	130 903	35	*33 %*	429 382	154	*55%*	670 987	214	*45%*
Tuol Sambatt	1 990	147 829	40	*34 %*	486 446	178	*56%*	759 675	247	*46%*
Saoy Muoy	1 703	130 509	35	*33 %*	427 318	153	*55%*	667 429	213	*45%*
Phum Prammuoy	1 823	137 706	37	*34 %*	451 733	163	*56%*	706 024	227	*46%*
Ampil	2 255	172 797	47	*33 %*	541 501	201	*58%*	844 985	278	*47%*
Dei Doh	1 717	131 010	35	*33 %*	430 192	154	*55%*	671 992	214	*45%*
Phum Ti Pram	2 172	167 754	45	*33 %*	524 200	193	*57%*	818 250	268	*47%*
Phum Ti Muoy	1 731	131 926	35	*33 %*	433 122	156	*55%*	676 646	216	*45%*
Khsach Prachheh	1 841	138 765	37	*34 %*	455 528	165	*56%*	711 773	229	*46%*
Krouch Chhmar	1 955	145 747	40	*34 %*	479 554	175	*56%*	748 267	242	*46%*
Saoy Pir	1 968	146 627	40	*34 %*	482 373	176	*56%*	752 649	244	*46%*
Phum Ti Prammuoy	2 001	148 637	40	*34 %*	489 154	179	*57%*	763 233	248	*46%*
Phum Ti Bei	1 864	140 002	38	*34 %*	460 355	167	*56%*	718 979	232	*46%*
Preaek Krouch	2 393	181 468	50	*34 %*	570 410	213	*58%*	889 420	295	*48%*
Sangkom Mean	3 326	238 490	68	*35 %*	763 785	293	*60%*	1 188 961	406	*49%*
Preaek Ta Hok	2 486	187 284	51	*34 %*	589 720	221	*58%*	918 979	306	*48%*
Svay Damnak	2 973	217 150	61	*35 %*	690 397	263	*59%*	1 075 549	364	*49%*
Chhuk	2 872	210 633	59	*35 %*	669 888	254	*59%*	1 043 618	352	*49%*

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Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Chumnik	4 938	337 226	99	*37 %*	1 098 187	433	*62%*	1 707 026	598	*51%*
		7 807 962		***34%***	**24 998 666**		***57%***	**40 360 634**		***46%***
Memot										
Danghet	94	16 277	3	*15 %*	35 538	9	*36%*	56 637	12	*30%*
Thma Ta Daok	126	18 251	4	*18 %*	42 263	11	*41%*	67 040	16	*34%*
Kalou	105	16 671	3	*15 %*	38 246	10	*39%*	60 195	14	*31%*
Ta Mau Khang	142	19 239	4	*19 %*	45 304	13	*43%*	71 964	18	*35%*
Peam	160	20 297	4	*20 %*	49 155	14	*45%*	77 804	20	*36%*
Chamkar Kor	407	35 356	8	*29 %*	100 359	36	*56%*	157 185	50	*46%*
Trapeang Ngeu	191	22 236	4	*22 %*	55 825	17	*47%*	88 116	24	*39%*
Mong	279	27 458	6	*26 %*	74 102	25	*52%*	116 128	34	*43%*
Khlong Tboung	141	19 203	4	*19 %*	45 249	13	*43%*	71 784	18	*35%*
Tramaeng Kraom	183	21 535	4	*21 %*	53 982	16	*47%*	85 010	23	*38%*
Stueng Angkam	523	42 410	11	*31 %*	124 496	46	*58%*	207 679	65	*45%*
Romeas Choul	184	21 571	4	*21 %*	54 682	17	*47%*	85 744	23	*38%*
Khliech	509	41 494	10	*31 %*	121 622	44	*58%*	203 116	64	*44%*
Poploam	266	26 578	5	*25 %*	71 284	24	*51%*	111 745	33	*42%*
Ou Khlout	210	23 331	4	*23 %*	59 675	19	*49%*	93 956	26	*40%*
Choam	296	28 481	6	*26 %*	77 898	26	*53%*	121 323	36	*43%*
Doung	296	28 481	6	*26 %*	77 898	26	*53%*	121 323	36	*43%*
Sambour	212	23 402	4	*23 %*	60 486	19	*49%*	94 317	26	*40%*
Thma Totueng	321	30 205	7	*27 %*	82 836	28	*54%*	129 354	39	*44%*
Ngeu Thmei	276	27 351	6	*26 %*	73 292	24	*52%*	115 213	34	*42%*
Tuol Kruos	267	26 614	5	*25 %*	71 339	24	*51%*	111 836	33	*42%*
Chhngar Kaeut	352	32 144	7	*28 %*	89 506	31	*55%*	139 666	43	*45%*
Spean Changkum	381	33 596	8	*28 %*	95 365	34	*55%*	148 973	46	*45%*
Masin Tuek	533	43 182	11	*32 %*	127 149	47	*58%*	211 147	67	*45%*
Ampol	931	70 342	19	*34 %*	217 470	82	*59%*	370 727	116	*44%*
Chi Plok	347	31 550	7	*28 %*	87 830	30	*54%*	137 565	42	*44%*
Lvea Leu	445	37 545	9	*30 %*	108 815	39	*57%*	182 311	56	*43%*
Thma Da	347	31 550	7	*28 %*	87 830	30	*54%*	137 565	42	*44%*
Srae Pongro	756	59 518	15	*32 %*	180 860	67	*58%*	282 497	93	*47%*
Koun Krapeu	297	28 517	6	*26 %*	77 953	26	*53%*	122 057	36	*43%*
Peuk	431	36 629	9	*29 %*	105 242	38	*56%*	164 572	52	*46%*
Krouch	386	34 190	8	*29 %*	96 342	34	*55%*	150 340	47	*45%*
Memot Thmei	272	27 208	6	*26 %*	72 371	24	*52%*	113 936	33	*42%*
Lam Baor	335	31 121	7	*28 %*	85 710	30	*54%*	133 917	41	*44%*
Choam Khyang	480	39 627	10	*30 %*	115 707	42	*57%*	193 719	60	*44%*
Ta Kaev	303	29 147	6	*27 %*	78 985	27	*53%*	123 515	37	*43%*
Banghaeur Huos	391	34 369	8	*29 %*	97 318	34	*56%*	151 707	47	*45%*
Robang Chroh	373	33 310	8	*29 %*	93 523	33	*55%*	146 601	46	*45%*
Srae Ta Nong Lech	334	31 085	7	*28 %*	85 655	30	*54%*	133 827	41	*44%*
Kabbas	1 097	80 429	22	*35 %*	252 128	97	*60%*	424 287	136	*46%*
Cheach	402	35 177	8	*29 %*	99 383	35	*56%*	155 908	49	*46%*
Kantraeuy	459	38 461	9	*30 %*	111 690	40	*57%*	186 784	58	*43%*
Kbal Slaeng	388	34 262	8	*29 %*	96 508	34	*55%*	151 345	47	*46%*
Andoung Thma	346	31 515	7	*28 %*	87 774	30	*54%*	137 475	42	*44%*
Choam Trav	466	39 126	10	*31 %*	112 833	41	*57%*	189 156	58	*44%*
Kantuot	611	48 047	12	*33 %*	150 863	55	*56%*	267 807	78	*40%*
Mkaor	418	36 164	9	*30 %*	103 067	37	*56%*	160 743	51	*46%*
Raksmei Khcheay	517	42 195	11	*31 %*	123 464	45	*58%*	205 578	64	*44%*
Tuek Tum	858	66 071	18	*33 %*	202 122	76	*59%*	315 342	105	*48%*
Triek	480	39 627	10	*30 %*	115 707	42	*57%*	193 719	60	*44%*
Nang Krapeu	376	33 417	8	*29 %*	94 389	33	*55%*	147 697	46	*45%*
Choam Ampil	585	46 287	12	*32 %*	145 869	52	*56%*	259 596	75	*40%*
Taonh	376	33 417	8	*29 %*	94 389	33	*55%*	147 697	46	*45%*
Khmuor	584	46 251	12	*32 %*	145 114	52	*55%*	258 681	74	*40%*
Cheung	619	48 333	12	*33 %*	152 705	55	*56%*	270 270	79	*40%*
Doung	355	32 251	7	*28 %*	89 672	31	*55%*	140 028	43	*45%*

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Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Mroan	502	41 244	10	*31 %*	120 479	44	*58%*	200 834	63	*44%*
Chrey Laeung	411	35 499	8	*29 %*	101 280	36	*56%*	158 461	50	*46%*
Khley	397	34 583	8	*29 %*	98 406	35	*56%*	153 898	48	*46%*
Srae Ta Nong	339	31 264	7	*28 %*	86 631	30	*54%*	135 103	41	*44%*
Choam M'aor	472	39 341	10	*31 %*	113 865	41	*57%*	191 256	59	*44%*
Angkam	502	41 244	10	*31 %*	120 479	44	*58%*	200 834	63	*44%*
Roung Chakr Skar	424	36 379	9	*30 %*	104 154	37	*56%*	162 934	52	*46%*
Chhngar Sala	448	38 067	9	*31 %*	108 982	39	*57%*	183 316	56	*43%*
Chhngar Kandal	433	37 116	9	*30 %*	106 052	38	*56%*	165 577	53	*46%*
Thnal Kaeng	497	41 065	10	*31 %*	119 502	44	*58%*	199 468	62	*44%*
Srae Ta Pich	541	43 468	11	*31 %*	128 347	47	*58%*	213 519	67	*45%*
Triek	473	39 376	10	*31 %*	114 619	42	*57%*	191 527	59	*44%*
Andoung Ta Chou	345	31 479	7	*28 %*	87 719	30	*54%*	137 385	42	*45%*
Kdol Leu	387	34 226	8	*29 %*	96 397	34	*55%*	150 430	47	*45%*
Prei	509	41 494	10	*31 %*	121 622	44	*58%*	203 116	64	*44%*
Beng Kaong	624	48 512	12	*32 %*	153 682	56	*56%*	271 546	79	*41%*
Phnov	994	74 255	20	*34 %*	230 166	88	*60%*	390 707	123	*45%*
Andoung Thma Leu	413	35 571	8	*29 %*	102 090	36	*56%*	159 466	50	*46%*
Mkhaoh	514	42 088	10	*32 %*	122 599	45	*58%*	204 483	64	*44%*
Beng	417	36 129	9	*30 %*	103 011	37	*56%*	160 652	51	*46%*
Tramaeng Leu	410	35 463	8	*29 %*	101 225	36	*56%*	158 280	50	*46%*
Beng	505	41 351	10	*31 %*	120 701	44	*58%*	201 930	63	*44%*
Sangkom Mean	572	45 407	11	*32 %*	142 995	51	*55%*	255 033	73	*40%*
Kaoh Thma	735	58 352	15	*32 %*	176 842	65	*58%*	275 652	90	*47%*
Boeng Chroung	645	50 093	13	*33 %*	158 398	58	*56%*	278 571	82	*41%*
Srae Saom Chas	636	49 356	13	*33 %*	156 445	57	*56%*	275 838	81	*41%*
Thlok	485	40 221	10	*31 %*	116 739	42	*57%*	195 176	61	*44%*
Sangkae Thmei	1 345	95 938	27	*36 %*	323 049	119	*58%*	552 650	170	*43%*
Doung	473	39 376	10	*31 %*	114 619	42	*57%*	191 527	59	*44%*
Prei	749	59 268	15	*32 %*	179 717	67	*58%*	280 215	92	*47%*
Chrey	580	46 108	12	*32 %*	144 193	52	*55%*	257 495	74	*40%*
Changkum Ti Muoy	561	44 599	11	*32 %*	140 986	50	*55%*	251 565	72	*39%*
Chheu Khloem	1 099	80 500	22	*35 %*	252 295	97	*60%*	424 649	136	*46%*
Ngiev	1 294	92 454	26	*35 %*	312 418	115	*57%*	536 227	164	*43%*
Leach Leu	651	50 307	13	*33 %*	159 430	58	*57%*	280 672	82	*41%*
Kravien Cheung	771	60 470	16	*32 %*	184 488	69	*58%*	287 331	95	*47%*
Bos	625	48 548	12	*32 %*	153 793	56	*56%*	272 461	79	*41%*
Khpob	1 351	96 153	27	*36 %*	324 081	120	*58%*	554 107	170	*43%*
Srae Saom Thmei	1 242	89 349	25	*35 %*	301 731	110	*57%*	518 980	157	*42%*
Sla Phnum	755	59 482	15	*32 %*	180 804	67	*58%*	282 406	93	*47%*
Choam Tuk	598	47 167	12	*33 %*	148 044	53	*56%*	263 335	76	*40%*
Kor	581	46 144	12	*32 %*	144 948	52	*56%*	258 319	74	*40%*
Meaek Puk	593	46 573	12	*32 %*	147 068	53	*56%*	262 058	75	*40%*
Mukh Kras	712	57 115	15	*32 %*	172 015	63	*57%*	268 446	88	*47%*
Rung	646	50 129	13	*33 %*	158 454	58	*56%*	279 305	82	*41%*
Thmei	589	46 430	12	*32 %*	146 790	53	*56%*	260 782	75	*40%*
Samraong Cheung	578	45 622	12	*32 %*	144 082	52	*55%*	257 224	74	*40%*
Masin	604	47 382	12	*32 %*	149 720	54	*56%*	265 435	77	*40%*
Chumnum Pol	672	51 473	13	*33 %*	163 448	60	*57%*	287 517	85	*41%*
Kang Keng	504	41 315	10	*31 %*	120 590	44	*58%*	201 015	63	*44%*
Thma Dab	787	61 457	16	*32 %*	187 529	70	*58%*	292 165	97	*48%*
Chhuk	683	52 282	14	*33 %*	166 155	61	*57%*	291 075	86	*42%*
Choam Ta Mau	907	69 068	18	*34 %*	212 587	80	*59%*	362 696	113	*44%*
Doun Rodth Ti Pir	624	48 512	12	*32 %*	153 682	56	*56%*	271 546	79	*41%*
Sambour	545	43 612	11	*31 %*	129 268	48	*58%*	214 795	68	*45%*
Preah Ponlea	772	60 505	16	*32 %*	184 544	69	*58%*	287 421	95	*47%*
Ngeu Thum	867	66 393	18	*33 %*	204 020	77	*59%*	317 895	106	*48%*
Changkum Kandal	839	64 977	17	*33 %*	198 216	74	*58%*	309 413	103	*48%*
Kantuot	863	66 250	18	*33 %*	203 099	76	*59%*	316 709	106	*48%*
Srae Poul	956	72 066	19	*34 %*	222 409	84	*59%*	378 757	119	*45%*

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Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Tuol Thma	805	62 516	16	*33%*	191 325	71	*58%*	297 914	99	*48%*
Doung	997	74 362	20	*34%*	231 032	88	*60%*	391 803	124	*45%*
Chhloung Bei	638	49 427	13	*33%*	156 611	57	*56%*	276 199	81	*41%*
Srae Kandal	1 309	93 406	26	*36%*	315 403	116	*57%*	540 971	166	*43%*
Kngaok	867	66 393	18	*33%*	204 020	77	*59%*	317 895	106	*48%*
Satum	1 073	79 155	22	*35%*	246 601	94	*60%*	416 256	133	*46%*
Chhngar Cheung	966	72 424	19	*34%*	224 362	85	*59%*	381 491	120	*45%*
S'am	852	65 442	17	*33%*	201 035	75	*59%*	313 151	104	*48%*
Rumchek	2 474	186 439	51	*34%*	586 956	220	*58%*	915 240	304	*48%*
Dar Cheung	1 062	78 347	21	*34%*	244 537	94	*60%*	412 699	131	*46%*
Salang Ti Mouy	1 704	130 545	35	*33%*	427 373	153	*55%*	667 519	213	*45%*
Kdol Kraom	992	74 183	20	*34%*	230 055	88	*60%*	390 436	123	*45%*
Chhloung Pir	754	59 447	15	*32%*	180 749	67	*58%*	281 672	93	*47%*
Doun Rodth Ti	864	66 286	18	*33%*	203 798	77	*59%*	316 800	106	*48%*
Kdol Phsar	1 089	80 142	22	*35%*	250 286	96	*60%*	421 181	134	*46%*
Leach Kraom	1 064	78 418	21	*34%*	244 704	94	*60%*	413 060	131	*46%*
Sangkom Mean	935	70 485	19	*34%*	218 391	83	*59%*	371 913	116	*44%*
Kravien Thom	1 087	80 071	22	*35%*	249 531	96	*60%*	420 910	134	*46%*
Dar Tboung	952	71 508	19	*34%*	221 488	84	*59%*	377 571	118	*45%*
Salang Bei	934	70 449	19	*34%*	217 637	82	*59%*	371 732	116	*44%*
Sampov Lun	1 300	93 084	26	*36%*	313 505	115	*57%*	537 775	164	*43%*
Dar Kandal	1 228	88 434	25	*35%*	298 856	109	*57%*	515 151	156	*42%*
Soutey	969	72 531	20	*34%*	225 228	85	*59%*	382 586	120	*45%*
Tramung	923	70 056	19	*34%*	215 628	81	*59%*	368 264	115	*44%*
Chi Peh	478	39 555	10	*30%*	115 596	42	*57%*	192 804	60	*44%*
Chambak	931	70 342	19	*34%*	217 470	82	*59%*	370 727	116	*44%*
Kampey	1 531	119 793	31	*33%*	361 668	135	*59%*	612 321	192	*44%*
Trabaek	932	70 378	19	*34%*	217 526	82	*59%*	370 817	116	*44%*
Dar Lech	1 137	83 104	23	*35%*	279 658	101	*56%*	485 863	145	*41%*
Dak Por	1 147	83 462	23	*35%*	281 611	102	*56%*	488 506	146	*42%*
Bangkov	2 225	171 309	46	*33%*	535 586	198	*57%*	835 498	275	*47%*
Samraong Tboung	1 308	93 370	26	*36%*	315 347	116	*57%*	540 881	166	*43%*
Dar Kandaol	2 006	148 816	41	*34%*	490 130	179	*57%*	764 599	249	*46%*
Trapeang Ruessei	1 057	78 168	21	*35%*	243 561	93	*60%*	411 422	131	*46%*
Prampir Meakkakra	1 009	75 206	20	*34%*	233 795	89	*60%*	395 451	125	*45%*
Chan Mul	1 283	92 061	26	*36%*	309 710	114	*57%*	532 669	163	*43%*
Pong Tuek	2 323	177 304	48	*33%*	555 872	207	*58%*	867 067	287	*47%*
Chamkar Thmey	1 043	77 252	21	*34%*	240 686	92	*60%*	406 859	129	*45%*
Preaek Puoy	1 288	92 239	26	*36%*	311 385	114	*57%*	534 126	163	*43%*
Kokir Tboung	1 311	93 477	26	*36%*	315 514	116	*57%*	541 152	166	*43%*
Sangkae Chas	547	44 098	11	*32%*	129 379	48	*58%*	214 976	68	*45%*
Bos Ta Oem	647	50 164	13	*33%*	158 509	58	*56%*	279 396	82	*41%*
Memot Kandal	907	69 068	18	*34%*	212 587	80	*59%*	362 696	113	*44%*
Kokir Cheung	1 304	93 227	26	*36%*	314 426	116	*57%*	538 961	165	*43%*
Tboung Voat	1 482	116 796	30	*32%*	351 204	131	*58%*	596 169	186	*44%*
Choam Triek	1 254	90 193	25	*35%*	303 850	111	*57%*	523 362	159	*42%*
Dar Phsar	1 294	92 454	26	*35%*	312 418	115	*57%*	536 227	164	*43%*
Chhloung Muoy	1 006	75 099	20	*34%*	232 929	89	*60%*	394 356	125	*45%*
Lour	2 575	192 542	53	*34%*	608 108	228	*59%*	947 905	317	*48%*
Kampoan	2 083	153 645	42	*35%*	505 755	186	*57%*	789 143	258	*47%*
Memong	1 610	124 693	33	*33%*	378 104	142	*59%*	637 870	202	*45%*
Khnong Krapeu	1 628	125 752	33	*33%*	381 899	144	*59%*	642 976	203	*45%*
Trapeang Reang	1 956	145 783	40	*34%*	479 610	175	*56%*	749 001	243	*46%*
Spean	2 062	152 479	42	*35%*	501 738	184	*57%*	782 942	255	*47%*
Salang Ti Pir	2 172	167 754	45	*33%*	524 200	193	*57%*	818 250	268	*47%*
Khnong Krapeu	2 905	212 644	59	*35%*	676 669	257	*59%*	1 053 467	356	*49%*
Memot Phsar	3 546	252 168	72	*36%*	809 240	312	*61%*	1 259 306	432	*50%*
Sla Kilo	340	31 300	7	*28%*	86 742	30	*54%*	136 018	42	*44%*
		10 691 013		***33%***	**33 030 131**		***57%***	**54 429 381**		***45%***

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Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Ou Reang Ov										
Trapeang Ph'av	141	19 203	4	*19 %*	45 249	13	*43%*	71 784	18	*35%*
Ta Ngin	150	19 525	4	*19 %*	47 146	13	*44%*	74 336	19	*35%*
Doun Tes	160	20 297	4	*20 %*	49 155	14	*45%*	77 804	20	*36%*
Boeng Kampues	201	22 594	4	*22 %*	57 778	18	*48%*	90 759	25	*39%*
Trapeang Ruessei	181	21 464	4	*21 %*	53 816	16	*47%*	84 649	23	*38%*
Trapeang Lvea	200	22 558	4	*22 %*	57 722	18	*48%*	90 669	25	*39%*
Trapeang Lvea	236	24 676	5	*24 %*	65 369	21	*50%*	102 348	29	*41%*
Damrel Ti Pir	198	22 487	4	*22 %*	56 912	18	*47%*	89 664	24	*39%*
Chan Andaet	199	22 522	4	*22 %*	57 667	18	*48%*	90 578	25	*39%*
Ou Laok	284	27 637	6	*26 %*	75 134	25	*52%*	117 585	35	*43%*
Kbal Peae	210	23 331	4	*23 %*	59 675	19	*49%*	93 956	26	*40%*
Tuol Sama	248	25 520	5	*24 %*	67 488	22	*51%*	105 996	30	*41%*
Prey Sambuor	305	29 218	6	*27 %*	79 795	27	*53%*	124 520	37	*43%*
Kbal Ou	289	28 231	6	*26 %*	76 111	26	*52%*	118 951	35	*43%*
Ampil Cheung	315	29 576	6	*27 %*	81 749	28	*54%*	127 163	38	*44%*
Kouk Ti	339	31 264	7	*28 %*	86 631	30	*54%*	135 103	41	*44%*
Thnal Kaeng	311	29 433	6	*27 %*	80 827	28	*53%*	125 977	38	*43%*
Banteay Mien	323	30 277	7	*27 %*	82 947	28	*54%*	130 269	40	*44%*
Thmei	435	37 187	9	*30 %*	106 163	38	*56%*	165 758	53	*46%*
Ou Popul	300	28 624	6	*26 %*	78 175	26	*53%*	123 153	37	*43%*
Svay Ta Lak	293	28 374	6	*26 %*	77 032	26	*53%*	120 871	36	*43%*
Stueng	201	22 594	4	*22 %*	57 778	18	*48%*	90 759	25	*39%*
Ba Srei	382	33 632	8	*28 %*	95 421	34	*55%*	149 154	47	*45%*
Boeng Kang	375	33 382	8	*29 %*	93 634	33	*55%*	146 782	46	*45%*
Damnak Kaev	330	30 527	7	*27 %*	84 734	29	*54%*	132 550	40	*44%*
Tuol Thkov	318	30 098	7	*28 %*	81 970	28	*53%*	128 258	39	*44%*
Damrel Ti Muoy	359	32 394	7	*28 %*	90 593	32	*55%*	141 857	44	*45%*
Sangkae	518	42 231	11	*31 %*	123 520	45	*58%*	205 669	64	*44%*
Bangkean Sar	376	33 417	8	*29 %*	94 389	33	*55%*	147 697	46	*45%*
Changva	318	30 098	7	*28 %*	81 970	28	*53%*	128 258	39	*44%*
Pou Meas	454	38 282	9	*30 %*	110 069	40	*57%*	185 507	57	*43%*
Khnab Damrei	312	29 469	6	*27 %*	80 938	28	*53%*	126 801	38	*44%*
Tuol Pnov	340	31 300	7	*28 %*	86 742	30	*54%*	136 018	42	*44%*
Khtom Leav	367	33 095	8	*29 %*	92 435	32	*55%*	144 320	45	*45%*
Changva	373	33 310	8	*29 %*	93 523	33	*55%*	146 601	46	*45%*
Daeum Changkran	469	39 233	10	*31 %*	113 698	41	*57%*	190 251	59	*44%*
Thmei	355	32 251	7	*28 %*	89 672	31	*55%*	140 028	43	*45%*
Prum Khet	377	33 453	8	*29 %*	94 444	33	*55%*	147 787	46	*45%*
Thma Samlieng	486	40 256	10	*31 %*	116 795	42	*57%*	195 910	61	*44%*
Tuol Kbal	462	38 568	9	*30 %*	111 912	40	*57%*	187 970	58	*43%*
Tuol	450	38 139	9	*30 %*	109 792	40	*57%*	184 231	57	*43%*
Kbal Thnal	368	33 131	8	*29 %*	92 546	32	*55%*	144 591	45	*45%*
Ampil Chrum	460	38 497	9	*30 %*	111 745	40	*57%*	186 964	58	*43%*
Srae Sruoch	376	33 417	8	*29 %*	94 389	33	*55%*	147 697	46	*45%*
Phnum	492	40 471	10	*31 %*	118 470	43	*58%*	197 367	61	*44%*
Thma Da Kaeut	327	30 420	7	*27 %*	83 868	29	*54%*	131 455	40	*44%*
Damrel Ti Bei	267	26 614	5	*25 %*	71 339	24	*51%*	111 836	33	*42%*
Phum Chetseb	419	36 200	9	*30 %*	103 122	37	*56%*	160 833	51	*46%*
Pralay	401	35 141	8	*30 %*	99 327	35	*56%*	155 084	49	*46%*
Lekh Buon Lech	525	54 800	21	*24 %*	144 417	46	*50%*	239 170	65	*39%*
Damnak Beng	579	46 072	12	*32 %*	144 138	52	*55%*	257 405	74	*40%*
Phum Hasebbuon	461	38 532	9	*30 %*	111 856	40	*57%*	187 789	58	*44%*
Tuol Sralau	502	65 881	36	*20 %*	158 700	60	*44%*	263 092	97	*34%*
Tuol Sophi	505	41 351	10	*31 %*	120 701	44	*58%*	201 930	63	*44%*
Andoung	573	45 443	11	*32 %*	143 106	51	*55%*	255 948	73	*40%*
Ou Damray	516	42 159	10	*31 %*	123 353	45	*58%*	205 307	64	*45%*
Srae Mien	554	44 348	11	*32 %*	131 166	48	*58%*	217 348	69	*45%*
Khnab Damrei	428	36 522	9	*30 %*	105 076	38	*56%*	164 210	52	*46%*

LOAD FORECAST

Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Thlok	468	39 198	10	*31 %*	112 944	41	*57%*	190 070	59	*44%*
Preah Theat Kandal	554	44 348	11	*32 %*	131 166	48	*58%*	217 348	69	*45%*
Trapeang	814	63 252	17	*33 %*	193 278	72	*58%*	301 292	100	*48%*
Lekh Pram	531	43 111	11	*32 %*	126 338	46	*58%*	210 141	66	*45%*
Trach Chrum	645	50 093	13	*33 %*	158 398	58	*56%*	278 571	82	*41%*
Krapeu	476	39 484	10	*30 %*	114 786	42	*57%*	192 442	60	*44%*
Tuol Trach	594	46 609	12	*32 %*	147 767	53	*56%*	262 149	75	*40%*
Trapeang Kandaol	546	44 062	11	*32 %*	129 324	48	*58%*	214 885	68	*45%*
Kbal Ou	477	39 520	10	*30 %*	114 897	42	*57%*	192 713	60	*44%*
Thnal Kaong	588	46 394	12	*32 %*	146 035	52	*56%*	260 601	75	*40%*
Sralong	598	47 167	12	*33 %*	148 044	53	*56%*	263 335	76	*40%*
Stueng Chey	672	51 473	13	*33 %*	163 448	60	*57%*	287 517	85	*41%*
Neak Ta tvear	663	51 152	13	*33 %*	161 550	59	*57%*	284 320	84	*41%*
Phum Chetsebbei	598	47 167	12	*33 %*	148 044	53	*56%*	263 335	76	*40%*
Trapeang Tea	568	45 264	11	*32 %*	142 074	51	*55%*	253 847	72	*40%*
Tumneab	709	57 007	15	*32 %*	171 149	63	*57%*	267 350	87	*47%*
Chey Saophoan	776	61 063	16	*33 %*	185 465	69	*58%*	288 607	95	*48%*
Svay Ming	768	60 362	16	*32 %*	183 623	68	*58%*	286 235	94	*47%*
Preah Theat Thma	719	57 365	15	*32 %*	173 158	64	*57%*	270 818	89	*47%*
Thma Da Lech	759	60 040	16	*32 %*	181 725	67	*58%*	283 683	93	*47%*
Tuol Ta Lorb	697	53 198	14	*34 %*	169 030	62	*57%*	295 638	88	*42%*
Yeak Tboung	598	47 167	12	*33 %*	148 044	53	*56%*	263 335	76	*40%*
Soeng	658	50 558	13	*33 %*	160 573	59	*57%*	282 954	83	*41%*
Kbal Tuk	697	53 198	14	*34 %*	169 030	62	*57%*	295 638	88	*42%*
Svay Ta Thoam	753	59 411	15	*32 %*	180 638	67	*58%*	281 401	93	*47%*
Sam Snae	709	57 007	15	*32 %*	171 149	63	*57%*	267 350	87	*47%*
Boeng Kandal	724	57 544	15	*32 %*	174 134	64	*57%*	272 094	89	*47%*
Thma Krachum	792	62 051	16	*33 %*	188 506	70	*58%*	294 176	97	*48%*
Tuol Sopoar	898	68 332	18	*33 %*	210 634	79	*59%*	360 053	112	*44%*
Ampil Tboung	848	65 298	17	*33 %*	200 114	75	*59%*	311 965	104	*48%*
Chrouy Ph'ong	710	57 043	15	*32 %*	171 904	63	*57%*	267 531	87	*47%*
Yeak Cheung	726	58 030	15	*32 %*	174 945	65	*57%*	273 099	90	*47%*
Tuol Ta Hao	770	60 434	16	*32 %*	183 789	68	*58%*	287 150	95	*48%*
Prey Sambuor Lech	877	67 166	18	*33 %*	205 973	77	*59%*	353 208	109	*44%*
Cheung Voat	863	66 250	18	*33 %*	203 099	76	*59%*	316 709	106	*48%*
Stueng Reang	963	72 316	19	*34 %*	224 196	85	*59%*	381 129	120	*45%*
Me Loung	710	57 043	15	*32 %*	171 904	63	*57%*	267 531	87	*47%*
Chrey Sokhom	712	57 115	15	*32 %*	172 015	63	*57%*	268 446	88	*47%*
Kanlaeng Chak	870	66 500	18	*33 %*	204 886	77	*59%*	318 991	107	*48%*
Meas Snae	834	64 383	17	*33 %*	197 240	74	*58%*	307 402	102	*48%*
Pou Svay Ming	877	67 166	18	*33 %*	205 973	77	*59%*	353 208	109	*44%*
Chruol	734	58 316	15	*32 %*	176 787	65	*58%*	275 562	90	*47%*
Chamkar Kor	804	62 480	16	*33 %*	191 269	71	*58%*	297 824	99	*48%*
Boeng Cheung	802	62 408	16	*33 %*	190 514	71	*58%*	297 643	99	*48%*
Trapeang Neang	1 018	75 943	21	*34 %*	235 693	90	*60%*	398 648	126	*45%*
Kong Chey	878	67 201	18	*33 %*	206 728	78	*59%*	353 389	109	*44%*
Thmei Kandal	955	72 030	19	*34 %*	222 353	84	*59%*	378 667	119	*45%*
Svay Roluos	891	68 081	18	*34 %*	208 903	79	*59%*	357 862	111	*44%*
Mitt Ta Rach	874	67 058	18	*33 %*	205 807	77	*59%*	320 267	107	*48%*
Tuol Sambour	839	64 977	17	*33 %*	198 216	74	*58%*	309 413	103	*48%*
Chamlak	729	58 138	15	*32 %*	175 111	65	*57%*	273 461	90	*47%*
Peuk	752	59 375	15	*32 %*	179 938	67	*58%*	281 311	93	*47%*
Prey Sralau	909	69 140	18	*34 %*	212 698	80	*59%*	363 611	113	*44%*
Bos Lhong	876	67 130	18	*33 %*	205 918	77	*59%*	321 092	107	*48%*
Chanlaong	814	63 252	17	*33 %*	193 278	72	*58%*	301 292	100	*48%*
Thmei Leu	987	74 005	20	*34 %*	229 078	87	*60%*	388 426	122	*45%*
Thmei	987	86 323	24	*29 %*	248 189	87	*55%*	419 555	122	*42%*
Tuol Mean Chey	1 006	75 099	20	*34 %*	232 929	89	*60%*	394 356	125	*45%*
Poung	835	64 419	17	*33 %*	197 295	74	*58%*	308 136	103	*48%*
Boeng Phtil	806	62 551	16	*33 %*	191 436	71	*58%*	298 829	99	*48%*

LOAD FORECAST

Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Phum Mpheypram	826	64 097	17	*33%*	195 397	73	*58%*	304 940	101	*48%*
Phnum	1 139	83 176	23	*35%*	279 769	101	*56%*	486 044	145	*41%*
Pring	887	67 523	18	*33%*	207 982	78	*59%*	356 585	111	*44%*
Kampul Serei	1 228	88 434	25	*35%*	298 856	109	*57%*	515 151	156	*42%*
Chrey Ta Sour	1 166	84 971	24	*35%*	285 517	104	*56%*	494 526	148	*42%*
Chumpu	957	72 102	19	*34%*	222 464	84	*59%*	378 938	119	*45%*
Putthea	1 098	80 464	22	*35%*	252 184	97	*60%*	424 378	136	*46%*
Lekh Bei	926	70 163	19	*34%*	216 438	82	*59%*	368 626	115	*44%*
Tuol Khleang	1 200	87 017	24	*35%*	293 052	107	*57%*	505 934	153	*42%*
Prasat	1 215	87 969	24	*35%*	295 982	108	*57%*	510 588	154	*42%*
Lekh Pir	1 101	93 305	24	*30%*	271 516	97	*56%*	456 602	136	*43%*
Phum Dabpir	976	73 196	20	*34%*	227 014	86	*60%*	384 868	121	*45%*
Svay Pok	1 384	98 163	28	*36%*	330 862	122	*58%*	564 600	174	*43%*
Lekh Buon Kaeut	1 199	86 981	24	*35%*	292 298	106	*57%*	505 019	152	*42%*
Sokram Chrum	1 566	121 875	32	*33%*	368 616	138	*59%*	623 819	196	*44%*
Saoy	1 801	136 504	37	*34%*	447 604	162	*56%*	698 908	224	*46%*
Phum Lekh Muoy	1 431	113 727	29	*32%*	340 572	127	*58%*	579 837	180	*44%*
Mien	1 868	140 560	38	*34%*	461 276	167	*56%*	720 165	232	*46%*
Phum Saesebbuon	1 547	120 780	32	*33%*	364 709	137	*59%*	617 155	194	*44%*
Srae Spey	2 063	152 514	42	*35%*	501 794	184	*57%*	783 033	255	*47%*
Chak	1 990	147 829	40	*34%*	486 446	178	*56%*	759 675	247	*46%*
		7 519 343		***32%***	**22 767 366**		***57%***	**37 313 329**		***44%***
Ponhea Kraek										
Monou Bu	134	18 538	4	*18%*	44 106	12	*42%*	69 502	17	*34%*
Tuol Chey	109	17 229	3	*17%*	38 524	10	*38%*	61 381	14	*31%*
dongkdoung	506	41 387	10	*31%*	121 400	44	*58%*	202 020	63	*44%*
Kouk Neavea	217	23 581	5	*23%*	61 462	19	*49%*	96 328	27	*40%*
Prey Totueng	372	33 274	8	*29%*	93 468	33	*55%*	145 777	45	*45%*
Dountei	225	24 282	5	*24%*	62 661	20	*49%*	98 790	28	*40%*
Thlok Trach	464	38 640	9	*30%*	112 666	41	*57%*	188 150	58	*43%*
Srae Tuek	275	27 315	6	*26%*	73 181	24	*52%*	114 298	34	*42%*
Lheang	298	28 553	6	*26%*	78 009	26	*53%*	122 148	37	*43%*
Veal	303	29 147	6	*27%*	78 985	27	*53%*	123 515	37	*43%*
Bos Khnor	304	29 182	6	*27%*	79 096	27	*53%*	124 339	37	*43%*
Thnal Kaeng	373	33 310	8	*29%*	93 523	33	*55%*	146 601	46	*45%*
Sduksombath	320	30 170	7	*28%*	82 781	28	*54%*	129 264	39	*44%*
Sambour phal	332	30 599	7	*27%*	84 900	29	*54%*	132 912	40	*44%*
Bos Roka	377	33 453	8	*29%*	94 444	33	*55%*	147 787	46	*45%*
Bos Ruessei	325	30 348	7	*27%*	83 757	29	*54%*	130 630	40	*44%*
Trapeang Khyang	292	28 338	6	*26%*	76 977	26	*53%*	120 047	36	*43%*
Trapeang Sokha	331	30 563	7	*27%*	84 789	29	*54%*	132 731	40	*44%*
Ta Hiev Leu	735	58 352	15	*32%*	176 842	65	*58%*	275 652	90	*47%*
Serei Sokhom	341	31 336	7	*28%*	86 798	30	*54%*	136 108	42	*44%*
Roung Chakr	266	26 578	5	*25%*	71 284	24	*51%*	111 745	33	*42%*
Kov	416	36 093	9	*30%*	102 312	36	*56%*	160 562	51	*46%*
Samraong	351	32 108	7	*28%*	88 751	31	*54%*	138 842	43	*45%*
Pou Thum	337	31 193	7	*28%*	85 877	30	*54%*	134 922	41	*44%*
Porsrok	1 534	119 900	31	*33%*	361 890	135	*59%*	613 417	193	*44%*
Thmei	588	46 394	12	*32%*	146 035	52	*56%*	260 601	75	*40%*
Trapeang Santey	522	42 374	11	*31%*	124 441	46	*58%*	207 589	65	*45%*
Thulchan	465	39 090	10	*31%*	112 777	41	*57%*	189 065	58	*44%*
Roul Ph'aem	461	38 532	9	*30%*	111 856	40	*57%*	187 789	58	*44%*
Bos Ti	512	41 601	10	*31%*	122 432	45	*58%*	204 121	64	*44%*
Kanhchae	570	45 336	11	*32%*	142 240	51	*55%*	254 762	73	*40%*
Huoch Lech	494	40 543	10	*31%*	118 637	43	*58%*	198 372	62	*44%*
Kabbas	466	39 126	10	*31%*	112 833	41	*57%*	189 156	58	*44%*
Kokir	680	52 175	14	*33%*	165 290	61	*57%*	289 979	86	*42%*
Doek Por	512	41 601	10	*31%*	122 432	45	*58%*	204 121	64	*44%*
Svay Meas	613	48 118	12	*33%*	151 673	55	*56%*	268 812	78	*40%*

LOAD FORECAST

Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Samrouy	523	42 410	11	*31 %*	124 496	46	*58%*	207 679	65	*45%*
Ta Ni	496	40 614	10	*31 %*	118 748	43	*57%*	198 553	62	*44%*
Neang Noy	593	46 573	12	*32 %*	147 068	53	*56%*	262 058	75	*40%*
Orprech	586	46 323	12	*32 %*	145 924	52	*56%*	259 686	75	*40%*
Phum Samprampir	552	44 277	11	*32 %*	130 356	48	*58%*	216 986	69	*45%*
Kandaol Kaong	1 114	81 452	22	*35 %*	255 224	98	*60%*	429 302	138	*46%*
Pou Roung Lech	373	45 629	20	*21 %*	112 633	35	*46%*	177 730	54	*37%*
Thnolthmey	595	47 060	12	*33 %*	147 822	53	*56%*	262 883	76	*40%*
Angkaeng	707	56 521	14	*32 %*	171 038	63	*57%*	266 435	87	*47%*
Tuol Kandal	683	52 282	14	*33 %*	166 155	61	*57%*	291 075	86	*42%*
Santey Ti Pir	670	51 402	13	*33 %*	163 337	60	*57%*	286 602	85	*41%*
Preah Andoung	696	53 162	14	*34 %*	168 330	62	*57%*	294 813	88	*42%*
Trapeang Chhleung	620	48 369	12	*33 %*	152 761	55	*56%*	270 360	79	*40%*
Sovann Mealea	624	48 512	12	*32 %*	153 682	56	*56%*	271 546	79	*41%*
Phum Saepram	559	44 527	11	*32 %*	132 142	49	*58%*	219 268	70	*45%*
Chrab	689	52 496	14	*33 %*	167 187	61	*57%*	292 532	87	*42%*
Bos Chek	1 219	88 112	25	*35 %*	296 903	108	*57%*	511 774	155	*42%*
Tuol Angkrong	786	61 421	16	*32 %*	187 474	70	*58%*	292 075	97	*48%*
Choam Thlok	680	52 175	14	*33 %*	165 290	61	*57%*	289 979	86	*42%*
Pou Roung Leu	786	61 421	16	*32 %*	187 474	70	*58%*	292 075	97	*48%*
Tuek Yong	804	62 480	16	*33 %*	191 269	71	*58%*	297 824	99	*48%*
Ruessei Chuor	658	50 558	13	*33 %*	160 573	59	*57%*	282 954	83	*41%*
Reul Kraom	704	56 414	14	*32 %*	170 173	63	*57%*	265 340	87	*47%*
Krouch	764	60 219	16	*32 %*	182 702	68	*58%*	284 959	94	*47%*
Psar Kandol Chrum	693	53 054	14	*34 %*	168 108	62	*57%*	293 718	87	*42%*
Thlok	782	61 278	16	*32 %*	186 553	69	*58%*	290 889	96	*48%*
Stueng Cheung	725	70 313	22	*27 %*	193 944	65	*52%*	303 313	89	*42%*
Reul Leu	658	50 558	13	*33 %*	160 573	59	*57%*	282 954	83	*41%*
Srah	736	58 388	15	*32 %*	176 898	65	*57%*	275 742	90	*47%*
Trapeang	805	62 516	16	*33 %*	191 325	71	*58%*	297 914	99	*48%*
Kouk Lvieng	782	61 278	16	*32 %*	186 553	69	*58%*	290 889	96	*48%*
Chhuk Sa	687	52 425	14	*33 %*	167 076	61	*57%*	292 261	87	*42%*
Ta Am	823	63 989	17	*33 %*	195 175	73	*58%*	303 844	101	*48%*
Dambang Ampeak	794	62 122	16	*33 %*	189 316	71	*58%*	294 537	97	*48%*
Andoung Chey	868	66 429	18	*33 %*	204 076	77	*59%*	318 720	107	*48%*
Trapeang	964	72 352	19	*34 %*	224 251	85	*59%*	381 220	120	*45%*
Santey Ti Muoy	730	58 173	15	*32 %*	175 866	65	*57%*	274 285	90	*47%*
Svay Sokhom	767	60 327	16	*32 %*	183 567	68	*58%*	286 055	94	*47%*
L'ak	972	73 053	20	*34 %*	226 093	86	*59%*	383 682	121	*45%*
Trapeang Stieng	858	66 071	18	*33 %*	202 122	76	*59%*	315 342	105	*48%*
Traset	884	67 416	18	*33 %*	207 760	78	*59%*	355 490	110	*44%*
Tuol Chamkar	886	67 488	18	*33 %*	207 871	78	*59%*	355 761	110	*44%*
Chi Tok	847	65 263	17	*33 %*	200 058	75	*59%*	311 785	104	*48%*
Pong Tuek	975	73 160	20	*34 %*	226 315	86	*59%*	384 778	121	*45%*
Kandaol Chrum	892	68 117	18	*34 %*	209 602	79	*59%*	357 952	111	*44%*
Bos Lvea	910	69 176	18	*34 %*	212 754	80	*59%*	363 701	113	*44%*
Chimoan Cheung	943	71 186	19	*34 %*	220 234	83	*59%*	374 375	117	*45%*
Pouthi Proeks	942	71 150	19	*34 %*	219 479	83	*59%*	374 104	117	*45%*
Sna Kandal	857	66 035	18	*33 %*	202 012	76	*59%*	315 162	105	*48%*
Cheung ang	1 015	75 421	20	*34 %*	234 882	90	*60%*	397 642	126	*45%*
Krasaom Sat	949	71 401	19	*34 %*	221 266	84	*59%*	376 476	118	*45%*
Pouthi Proeks Lech	966	72 424	19	*34 %*	224 362	85	*59%*	381 491	120	*45%*
Angkor Krau	945	71 258	19	*34 %*	220 345	83	*59%*	375 199	118	*45%*
Angkor Knong	1 123	82 188	23	*35 %*	276 728	100	*56%*	481 209	144	*41%*
Tuol Pou	960	72 209	19	*34 %*	223 330	85	*59%*	380 034	119	*45%*
Mkak	980	73 339	20	*34 %*	227 292	86	*59%*	386 144	121	*45%*
Ta Hiev Kraom	925	70 127	19	*34 %*	216 383	82	*59%*	368 445	115	*44%*
Tuol Sangkae	954	71 994	19	*34 %*	222 242	84	*59%*	377 842	118	*45%*
Kantuot	1 091	80 214	22	*35 %*	250 452	96	*60%*	422 186	135	*46%*
Pou Ent Pir	171	20 691	4	*20 %*	51 863	15	*46%*	81 362	21	*37%*

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Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Phum Hapram	1 367	97 140	27	*36 %*	327 122	121	*58%*	559 585	173	*43%*
Ampil	1 066	78 490	21	*34 %*	245 458	94	*60%*	413 975	132	*46%*
Sbaek Kueu	850	65 370	17	*33 %*	200 924	75	*59%*	312 880	104	*48%*
Chimoan Tboung	1 117	81 974	23	*35 %*	256 090	98	*60%*	430 398	138	*46%*
Prey Tumnob	940	71 079	19	*34 %*	219 368	83	*59%*	373 279	117	*44%*
Ampuk	1 097	80 429	22	*35 %*	252 128	97	*60%*	424 287	136	*46%*
Spean Chrey	943	71 186	19	*34 %*	220 234	83	*59%*	374 375	117	*45%*
Anlong Chrey	1 079	79 370	22	*35 %*	248 333	95	*60%*	418 538	134	*46%*
Stueng	1 022	76 086	21	*34 %*	235 970	90	*60%*	399 834	127	*45%*
Kaong Kang Ti Pir	1 211	87 411	24	*35 %*	295 061	108	*57%*	509 311	154	*42%*
Huoch Kaeut	1 178	85 400	24	*35 %*	288 280	105	*56%*	498 818	150	*42%*
Sralau Chroeng	1 021	76 051	21	*34 %*	235 915	90	*60%*	399 743	127	*45%*
Trapeang Thma	798	62 265	16	*33 %*	189 593	71	*58%*	295 723	98	*48%*
Chimoan Lech	1 054	78 061	21	*35 %*	242 695	93	*60%*	410 327	131	*45%*
Kaong Kang Ti	1 362	96 961	27	*36 %*	326 145	121	*58%*	557 575	172	*43%*
Sambour	1 009	75 206	20	*34 %*	233 795	89	*60%*	395 451	125	*45%*
Ponley	1 232	88 992	25	*35 %*	299 777	110	*57%*	516 337	157	*42%*
Trach Khaol	1 954	145 711	40	*34 %*	479 443	175	*56%*	747 996	242	*46%*
Pou Ent Muoy	454	38 282	9	*30 %*	110 069	40	*57%*	185 507	57	*43%*
Chrak Rumdeng	1 057	78 168	21	*35 %*	243 561	93	*60%*	411 422	131	*46%*
Trapeang Phlong	1 493	117 604	31	*32 %*	353 911	132	*58%*	599 727	187	*44%*
Trapeang Pring	1 056	78 132	21	*35 %*	243 505	93	*60%*	410 598	131	*45%*
Trapeang Prei	1 102	81 022	22	*35 %*	253 105	97	*60%*	425 564	136	*46%*
Serei Sokha	3 037	220 684	62	*35 %*	703 847	268	*60%*	1 096 354	372	*49%*
Bat Tonlea	1 146	83 426	23	*35 %*	281 555	102	*56%*	488 416	146	*42%*
Kraek Cheung	1 111	81 344	22	*35 %*	254 359	98	*60%*	428 116	137	*46%*
Andaot	1 272	91 252	25	*35 %*	307 701	113	*57%*	529 202	161	*43%*
Kaong Kang Ti Bei	1 524	119 543	31	*33 %*	359 882	135	*58%*	609 949	191	*44%*
Kor	1 199	86 981	24	*35 %*	292 298	106	*57%*	505 019	152	*42%*
Apuk	1 420	112 918	29	*32 %*	338 508	126	*58%*	576 279	179	*44%*
Proeks	1 177	85 365	24	*35 %*	288 225	105	*56%*	498 728	150	*42%*
Chey Nikom	1 336	95 201	27	*36 %*	321 096	118	*58%*	549 273	169	*43%*
La	1 425	113 097	29	*32 %*	339 540	126	*58%*	578 380	180	*44%*
Popel	1 353	96 224	27	*36 %*	324 891	120	*58%*	555 022	171	*43%*
khsak	1 414	112 704	29	*32 %*	337 476	125	*58%*	574 822	178	*44%*
Stueng Touch	1 308	93 370	26	*36 %*	315 347	116	*57%*	540 881	166	*43%*
Preah Phdau	1 415	112 740	29	*32 %*	337 531	125	*58%*	574 912	178	*44%*
Veal Mlu	1 500	117 854	31	*32 %*	354 999	133	*58%*	602 009	188	*44%*
Peuk	1 995	148 007	40	*34 %*	487 422	178	*57%*	761 041	247	*46%*
Kbal Damrei	1 959	145 890	40	*34 %*	480 475	175	*56%*	749 453	243	*46%*
Kranhung	1 939	144 760	39	*34 %*	475 870	173	*56%*	743 342	241	*46%*
Trapeang Phlong	2 936	214 582	60	*35 %*	682 695	260	*59%*	1 063 779	360	*49%*
Sovann Kom	1 690	129 629	34	*33 %*	424 499	152	*55%*	663 600	211	*45%*
Trapeang Pring Pir	1 639	126 561	33	*33 %*	383 963	145	*59%*	646 534	205	*45%*
Kraek Tboung	2 060	151 992	42	*34 %*	500 984	184	*57%*	782 118	255	*47%*
S'am	2 241	172 296	47	*33 %*	538 626	200	*57%*	840 422	277	*47%*
Sakmakom	2 164	167 468	45	*33 %*	523 001	193	*57%*	815 788	268	*47%*
Chimoan Kandal	2 005	148 780	41	*34 %*	490 075	179	*57%*	764 419	249	*46%*
Chi Peang	2 072	152 836	42	*34 %*	503 747	185	*57%*	786 410	257	*47%*
Thmei	2 437	196 605	51	*32 %*	598 310	216	*56%*	934 509	300	*46%*
Memae	2 816	207 386	58	*35 %*	658 280	249	*59%*	1 025 185	345	*49%*
Sokh Chamraeun	622	48 440	12	*33 %*	153 571	56	*56%*	271 365	79	*41%*
10.8	632	49 213	13	*33 %*	155 524	56	*56%*	274 652	80	*41%*
Angkor Leu	1 072	79 119	22	*35 %*	246 546	94	*60%*	416 166	133	*46%*
		10 802 008		***33%***	**33 615 941**		***58%***	**55 460 221**		***45%***
Prey Chhor										
Thnong	144	19 310	4	*19 %*	46 114	13	*43%*	72 879	18	*35%*
Sbaeng	168	20 584	4	*20 %*	50 997	15	*45%*	80 266	21	*37%*
Khlouy Ti Buon	395	34 512	8	*29 %*	98 239	35	*56%*	152 893	48	*45%*

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Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Sangkae	217	23 581	5	*23 %*	61 462	19	*49%*	96 328	27	*40%*
Khvav	371	33 239	8	*29 %*	93 357	33	*55%*	145 596	45	*45%*
Smer	273	27 244	6	*26 %*	73 070	24	*52%*	114 117	33	*42%*
Prey Sralanh	318	30 098	7	*28 %*	81 970	28	*53%*	128 258	39	*44%*
Kaoh Svay	273	27 244	6	*26 %*	73 070	24	*52%*	114 117	33	*42%*
Tuol Ampil	404	35 249	8	*29 %*	100 193	36	*56%*	156 179	49	*46%*
Kabbas	432	37 080	9	*30 %*	105 997	38	*56%*	165 396	53	*46%*
Preah Srok	334	31 085	7	*28 %*	85 655	30	*54%*	133 827	41	*44%*
Prey Rumdeng	321	30 205	7	*27 %*	82 836	28	*54%*	129 354	39	*44%*
Pratheat	333	30 635	7	*27 %*	85 599	30	*54%*	133 736	41	*44%*
Sdok Antong	355	32 251	7	*28 %*	89 672	31	*55%*	140 028	43	*45%*
Traeuy Ou	395	34 512	8	*29 %*	98 239	35	*56%*	152 893	48	*45%*
Trapeang Pnov	328	30 456	7	*27 %*	83 979	29	*54%*	131 726	40	*44%*
Khlouy Ti Muoy	362	32 502	7	*28 %*	91 459	32	*55%*	143 043	44	*45%*
Ou Da	637	49 392	13	*33 %*	156 556	57	*56%*	276 109	81	*41%*
Traeung	473	39 376	10	*31 %*	114 619	42	*57%*	191 527	59	*44%*
Roluos	318	30 098	7	*28 %*	81 970	28	*53%*	128 258	39	*44%*
Andoung	367	33 095	8	*29 %*	92 435	32	*55%*	144 320	45	*45%*
Chrey Vien	299	28 589	6	*26 %*	78 064	26	*53%*	122 238	37	*43%*
Trapeang Tbal	449	38 103	9	*30 %*	109 093	39	*57%*	183 497	56	*43%*
Trapeang	475	39 448	10	*31 %*	114 730	42	*57%*	191 708	59	*44%*
Mien	354	44 534	20	*20 %*	108 727	34	*45%*	171 066	53	*36%*
Phkay Proek	570	45 336	11	*32 %*	142 240	51	*55%*	254 762	73	*40%*
Voat Chas	517	42 195	11	*31 %*	123 464	45	*58%*	205 578	64	*44%*
Ou Sangkae	356	32 287	7	*28 %*	90 427	32	*55%*	140 943	43	*45%*
Kok Kandal	350	31 658	7	*28 %*	88 696	31	*54%*	138 661	43	*45%*
Kralaong	391	34 369	8	*29 %*	97 318	34	*56%*	151 707	47	*45%*
Svay Pen	479	39 591	10	*30 %*	115 652	42	*57%*	193 538	60	*44%*
Kraoy Voat	447	37 617	9	*30 %*	108 926	39	*57%*	183 135	56	*43%*
Leang Khsach	436	37 223	9	*30 %*	106 918	38	*57%*	166 672	53	*46%*
Thma Koul	517	42 195	11	*31 %*	123 464	45	*58%*	205 578	64	*44%*
Ta Ngal	472	39 341	10	*31 %*	113 865	41	*57%*	191 256	59	*44%*
Kbal Damrei	485	40 221	10	*31 %*	116 739	42	*57%*	195 176	61	*44%*
Pun Pramat	453	38 246	9	*30 %*	110 014	40	*57%*	185 417	57	*43%*
Trapeang Chhuk	668	51 330	13	*33 %*	162 526	59	*57%*	286 331	85	*41%*
Kandaol Kaong	561	44 599	11	*32 %*	140 986	50	*55%*	251 565	72	*39%*
Trapeang svay	469	39 233	10	*31 %*	113 698	41	*57%*	190 251	59	*44%*
Dangkao	502	41 244	10	*31 %*	120 479	44	*58%*	200 834	63	*44%*
Kouk Trea Lech	533	43 182	11	*32 %*	127 149	47	*58%*	211 147	67	*45%*
Trapeang Reang	539	43 397	11	*32 %*	128 181	47	*58%*	212 513	67	*45%*
Trapeang Ampil	517	42 195	11	*31 %*	123 464	45	*58%*	205 578	64	*44%*
Kok	491	40 435	10	*31 %*	117 771	43	*57%*	197 277	61	*44%*
Prey Sak	522	42 374	11	*31 %*	124 441	46	*58%*	207 589	65	*45%*
Keh	544	43 576	11	*31 %*	129 157	48	*58%*	213 880	68	*45%*
Klaeng Poar	547	44 098	11	*32 %*	129 379	48	*58%*	214 976	68	*45%*
Chambak Thma	613	48 118	12	*33 %*	151 673	55	*56%*	268 812	78	*40%*
Veal	471	39 305	10	*31 %*	113 809	41	*57%*	190 522	59	*44%*
Kaoh Kaphem	593	46 573	12	*32 %*	147 068	53	*56%*	262 058	75	*40%*
Kouk Trea Kaeut	605	47 417	12	*32 %*	149 831	54	*56%*	265 706	77	*40%*
Ta Sar	59	14 195	3	*12 %*	28 647	6	*29%*	45 229	9	*23%*
Pravas	557	44 456	11	*32 %*	132 032	49	*58%*	218 443	69	*45%*
Angkrang	551	44 241	11	*32 %*	130 300	48	*58%*	216 252	68	*45%*
Tuek Nuem	610	47 596	12	*32 %*	150 807	54	*56%*	267 626	78	*40%*
Tang Kouk	586	46 323	12	*32 %*	145 924	52	*56%*	259 686	75	*40%*
Chres	559	44 527	11	*32 %*	132 142	49	*58%*	219 268	70	*45%*
Tro Mukh Ti Muoy	581	46 144	12	*32 %*	144 948	52	*56%*	258 319	74	*40%*
Dei Lou	639	49 463	13	*33 %*	156 667	57	*56%*	277 024	81	*41%*
Samnak Cheung	298	28 553	6	*26 %*	78 009	26	*53%*	122 148	37	*43%*
Prey Khchay	613	60 437	21	*26 %*	170 783	55	*50%*	299 941	78	*36%*
Trapeang Bei	616	48 226	12	*33 %*	151 839	55	*56%*	269 084	78	*40%*

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Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Khvet Touch	615	48 190	12	*33%*	151 784	55	*56%*	268 993	78	*40%*
Samnak Tboung	5 513	372 730	110	*38%*	1 217 841	483	*63%*	1 891 788	667	*52%*
Ta Chak	608	47 525	12	*32%*	149 997	54	*56%*	266 712	77	*40%*
Tong Rong	577	45 586	12	*32%*	144 027	52	*55%*	257 133	74	*40%*
Trapeang Ruessei	648	50 200	13	*33%*	158 565	58	*56%*	279 577	82	*41%*
Trapeang Sangkae	649	50 236	13	*33%*	158 676	58	*56%*	279 757	82	*41%*
Tro Mukh Ti pir	563	45 085	11	*32%*	141 097	50	*55%*	252 480	72	*40%*
Roung Kou	274	27 280	6	*26%*	73 126	24	*52%*	114 208	34	*42%*
Tuol Prich	771	60 470	16	*32%*	184 488	69	*58%*	287 331	95	*47%*
Kur	552	44 277	11	*32%*	130 356	48	*58%*	216 986	69	*45%*
Tuol Ta Kaor	755	59 482	15	*32%*	180 804	67	*58%*	282 406	93	*47%*
Voat Chas	628	49 070	13	*33%*	154 603	56	*56%*	273 466	80	*41%*
Trapeang Thum	767	60 327	16	*32%*	183 567	68	*58%*	286 055	94	*47%*
Damnak Pongro	687	52 425	14	*33%*	167 076	61	*57%*	292 261	87	*42%*
Andoung Ta Loeng	726	58 030	15	*32%*	174 945	65	*57%*	273 099	90	*47%*
Ou Kambot	730	58 173	15	*32%*	175 866	65	*57%*	274 285	90	*47%*
Trapeang Chi	639	49 463	13	*33%*	156 667	57	*56%*	277 024	81	*41%*
Srangae Cheung	891	68 081	18	*34%*	208 903	79	*59%*	357 862	111	*44%*
Ta Koch	802	74 727	23	*27%*	209 625	71	*53%*	328 772	99	*43%*
Prey sralau	712	57 115	15	*32%*	172 015	63	*57%*	268 446	88	*47%*
Dei Kraham	819	63 431	17	*33%*	194 254	73	*58%*	302 658	100	*48%*
Khlouy Ti Bei	867	78 712	23	*28%*	223 131	77	*54%*	349 024	106	*44%*
Sek Yum	774	60 992	16	*33%*	184 710	69	*58%*	288 427	95	*48%*
Chachak	714	57 186	15	*32%*	172 181	63	*57%*	268 807	88	*47%*
Doung	675	51 581	13	*33%*	164 313	60	*57%*	288 612	85	*41%*
Srangae Tboung	791	62 015	16	*33%*	188 450	70	*58%*	293 442	97	*48%*
Tuol Poun	843	65 120	17	*33%*	199 137	75	*59%*	310 599	103	*48%*
Trapeang thum	842	65 084	17	*33%*	199 082	75	*59%*	310 508	103	*48%*
Trapeang Tnaot	809	63 074	17	*33%*	192 246	72	*58%*	299 191	99	*48%*
Ta Lon	818	63 396	17	*33%*	194 199	73	*58%*	302 478	100	*48%*
Samraong	769	60 398	16	*32%*	183 678	68	*58%*	286 326	94	*47%*
Tuol Bak Koam	718	57 329	15	*32%*	173 102	64	*57%*	269 993	88	*47%*
Krouch	827	64 132	17	*33%*	196 097	73	*58%*	305 030	101	*48%*
Ta Kret	824	64 025	17	*33%*	195 231	73	*58%*	303 935	101	*48%*
Ta Ream	857	66 035	18	*33%*	202 012	76	*59%*	315 162	105	*48%*
Chonloat Dai	922	70 020	19	*34%*	215 517	81	*59%*	367 350	115	*44%*
Andoung Phdau	818	63 396	17	*33%*	194 199	73	*58%*	302 478	100	*48%*
Tonle Sar	870	66 500	18	*33%*	204 886	77	*59%*	318 991	107	*48%*
Banteay Rueng	862	66 214	18	*33%*	203 044	76	*59%*	316 619	106	*48%*
Thmei	848	65 298	17	*33%*	200 114	75	*59%*	311 965	104	*48%*
Samraong	824	64 025	17	*33%*	195 231	73	*58%*	303 935	101	*48%*
Dai Buon	938	71 007	19	*34%*	218 558	83	*59%*	372 918	117	*45%*
Lech Voat	798	62 265	16	*33%*	189 593	71	*58%*	295 723	98	*48%*
Nam Ken	817	63 360	17	*33%*	193 444	72	*58%*	302 297	100	*48%*
Senson Tboung	923	70 056	19	*34%*	215 628	81	*59%*	368 264	115	*44%*
Trapeang Rung	1 120	82 081	23	*35%*	256 955	99	*60%*	431 493	138	*46%*
Kakaoh	879	67 237	18	*33%*	206 783	78	*59%*	354 213	110	*44%*
Trapeang Krasang	916	106 347	53	*22%*	271 816	92	*47%*	459 279	153	*35%*
Chhuk Sa	877	67 166	18	*33%*	205 973	77	*59%*	353 208	109	*44%*
Doung	776	61 063	16	*33%*	185 465	69	*58%*	288 607	95	*48%*
Andoung Pech	763	60 184	16	*32%*	182 646	68	*58%*	284 869	94	*47%*
Trapeang Leak	862	66 214	18	*33%*	203 044	76	*59%*	316 619	106	*48%*
Tuol Khvav	837	64 490	17	*33%*	198 050	74	*58%*	308 407	103	*48%*
Krasang Ta Mong	936	70 521	19	*34%*	218 447	83	*59%*	372 003	116	*44%*
Trapeang Bet	771	60 470	16	*32%*	184 488	69	*58%*	287 331	95	*47%*
Kampong Samnanh	1 102	81 022	22	*35%*	253 105	97	*60%*	425 564	136	*46%*
Ou Kambaor	1 030	76 372	21	*34%*	237 812	91	*60%*	402 296	128	*45%*
Kouk Sralau	351	32 108	7	*28%*	88 751	31	*54%*	138 842	43	*45%*
Roul Chruk	275	27 315	6	*26%*	73 181	24	*52%*	114 298	34	*42%*
Trang	937	70 971	19	*34%*	218 502	83	*59%*	372 827	117	*45%*

LOAD FORECAST

Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Traeung	1 088	80 107	22	*35 %*	250 230	96	*60%*	421 091	134	*46%*
Thma Pun Kandal	1 150	83 984	23	*35 %*	282 476	102	*56%*	489 602	147	*42%*
Prasat	987	74 005	20	*34 %*	229 078	87	*60%*	388 426	122	*45%*
Prey Khchay	1 390	98 377	28	*36 %*	331 949	123	*58%*	566 791	175	*43%*
Trapeang Beng	936	70 521	19	*34 %*	218 447	83	*59%*	372 003	116	*44%*
Ou Ta Nov	838	64 526	17	*33 %*	198 161	74	*58%*	308 588	103	*48%*
Samraong	902	68 475	18	*33 %*	211 555	80	*59%*	361 239	112	*44%*
Thma Da	793	62 086	16	*33 %*	188 561	70	*58%*	294 266	97	*48%*
Senson Cheung	1 008	75 171	20	*34 %*	233 096	89	*60%*	395 361	125	*45%*
Ang	875	67 094	18	*33 %*	205 862	77	*59%*	321 001	107	*48%*
Trapeang Reang	1 091	80 214	22	*35 %*	250 452	96	*60%*	422 186	135	*46%*
Svay Prey	1 062	78 347	21	*34 %*	244 537	94	*60%*	412 699	131	*46%*
Tuol Khpos	1 098	80 464	22	*35 %*	252 184	97	*60%*	424 378	136	*46%*
Ta Ok	1 066	78 490	21	*34 %*	245 458	94	*60%*	413 975	132	*46%*
Kampong Samret	1 130	82 439	23	*35 %*	278 515	101	*56%*	483 491	144	*41%*
Sour Saen	1 101	80 987	22	*35 %*	252 406	97	*60%*	425 473	136	*46%*
Phteah Khpos	1 167	85 007	24	*35 %*	286 216	104	*56%*	495 260	149	*42%*
Krasang Pul	960	72 209	19	*34 %*	223 330	85	*59%*	380 034	119	*45%*
Boeng Nay	1 208	87 303	24	*35 %*	294 251	107	*57%*	508 396	154	*42%*
Banteay Thmei	1 055	78 096	21	*35 %*	243 450	93	*60%*	410 507	131	*45%*
Baray	1 058	78 204	21	*34 %*	243 616	93	*60%*	411 513	131	*46%*
Soudei	1 118	82 010	23	*35 %*	256 145	98	*60%*	430 488	138	*46%*
Tang Trapeang	1 064	78 418	21	*34 %*	244 704	94	*60%*	413 060	131	*46%*
Lvea	1 153	121 048	55	*24 %*	340 673	103	*47%*	584 084	169	*35%*
Chheu Bak	1 103	81 058	22	*35 %*	253 160	97	*60%*	425 744	136	*46%*
Svay Reaks	1 128	82 367	23	*35 %*	277 760	100	*56%*	482 667	144	*41%*
Trapeang Boeng	1 713	130 867	35	*33 %*	429 271	154	*55%*	670 716	214	*45%*
Ou Doun Nhea	1 061	78 311	21	*34 %*	244 482	94	*60%*	412 608	131	*46%*
Trapeang Tuk	1 068	78 976	22	*35 %*	245 625	94	*60%*	414 980	132	*46%*
Ta Ley	1 197	86 910	24	*35 %*	292 187	106	*57%*	504 839	152	*42%*
Khlouy Ti Pir	1 109	81 273	22	*35 %*	254 248	98	*60%*	427 935	137	*46%*
Pring Bei Daeum	1 221	88 183	25	*35 %*	297 070	108	*57%*	512 779	155	*42%*
Khvet Thum	1 006	75 099	20	*34 %*	232 929	89	*60%*	394 356	125	*45%*
Trapeang Poun	1 327	94 464	26	*36 %*	319 198	118	*57%*	546 720	168	*43%*
Ta Mout	1 189	86 209	24	*35 %*	290 345	106	*57%*	502 376	151	*42%*
Neak Ta Snoeng	1 319	94 178	26	*36 %*	317 356	117	*57%*	543 614	167	*43%*
Ta Kaev	1 279	91 918	26	*36 %*	309 432	114	*57%*	530 749	162	*43%*
Ou Ta thok	1 244	89 421	25	*35 %*	301 897	110	*57%*	519 985	158	*42%*
Prey Chhor	1 325	94 393	26	*36 %*	319 087	118	*57%*	545 896	167	*43%*
Tuol Chambak	1 452	114 893	30	*32 %*	345 233	129	*58%*	586 682	183	*44%*
Slaeng	1 459	115 558	30	*32 %*	346 376	129	*58%*	588 963	183	*44%*
Mrenh	1 375	97 426	27	*36 %*	328 964	122	*58%*	562 047	173	*43%*
Ampil Thum	1 467	115 844	30	*32 %*	348 218	130	*58%*	591 426	184	*44%*
Thmei	1 461	115 630	30	*32 %*	347 186	129	*58%*	589 968	184	*44%*
Rumduol	1 444	114 607	30	*32 %*	343 391	128	*58%*	584 219	182	*44%*
Ou Chrok	1 386	98 234	28	*36 %*	331 672	123	*58%*	565 605	175	*43%*
Ta Meas	1 518	118 913	31	*32 %*	358 850	134	*58%*	607 848	190	*44%*
Me Meang	1 776	134 780	36	*34 %*	442 022	159	*55%*	690 787	221	*45%*
Komar Reach	1 660	127 727	34	*33 %*	387 981	146	*59%*	653 469	207	*45%*
Doun Lai	1 864	140 002	38	*34 %*	460 355	167	*56%*	718 979	232	*46%*
Tuol Thma	1 902	142 606	39	*34 %*	468 113	170	*56%*	731 483	236	*46%*
Doun Dei	2 524	214 110	52	*30 %*	635 698	224	*55%*	993 740	311	*45%*
Prey Totueng	3 258	246 717	66	*34 %*	769 167	288	*59%*	1 198 743	398	*48%*
		11 518 878		***33%***	**35 471 243**		***57%***	**58 570 905**		***45%***
Srei Santhor										
Khvet	169	20 619	4	*20 %*	51 053	15	*45%*	80 357	21	*37%*
Kouk Char	219	23 653	5	*23 %*	61 629	20	*49%*	96 689	27	*40%*
Ta Ngak Thmei	266	26 578	5	*25 %*	71 284	24	*51%*	111 745	33	*42%*
Kngaok	410	35 463	8	*29 %*	101 225	36	*56%*	158 280	50	*46%*

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Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Tang Krang	340	31 300	7	*28 %*	86 742	30	*54%*	136 018	42	*44%*
Teahean	460	38 497	9	*30 %*	111 745	40	*57%*	186 964	58	*43%*
Angk	499	41 136	10	*31 %*	119 613	44	*58%*	199 648	62	*44%*
Trea	657	50 522	13	*33 %*	160 518	59	*57%*	282 863	83	*41%*
Khnor Doung	638	49 427	13	*33 %*	156 611	57	*56%*	276 199	81	*41%*
Chi Bal	698	53 233	14	*34 %*	169 141	62	*57%*	295 819	88	*42%*
Prathnal	678	52 103	14	*33 %*	165 179	61	*57%*	289 064	85	*41%*
Chonloat Dai	664	51 187	13	*33 %*	162 249	59	*57%*	284 411	84	*41%*
Khting	671	51 438	13	*33 %*	163 392	60	*57%*	286 783	85	*41%*
Svay Ta Noan Kha	869	66 465	18	*33 %*	204 775	77	*59%*	318 810	107	*48%*
Svay Ta Noan Ka	762	60 148	16	*32 %*	182 591	68	*58%*	284 778	94	*47%*
Preaek Ouv	772	60 505	16	*32 %*	184 544	69	*58%*	287 421	95	*47%*
Chi Pao	798	62 265	16	*33 %*	189 593	71	*58%*	295 723	98	*48%*
Turi Leu	677	52 067	14	*33 %*	164 424	60	*57%*	288 884	85	*41%*
Tong Tralach	856	66 000	18	*33 %*	201 956	76	*59%*	314 337	105	*48%*
Moan Dab Kraom	883	67 380	18	*33 %*	207 705	78	*59%*	355 399	110	*44%*
Ta Koch	905	68 997	18	*34 %*	211 777	80	*59%*	362 334	113	*44%*
Ampil	912	69 247	19	*34 %*	213 564	81	*59%*	364 706	114	*44%*
Khyaong	878	67 201	18	*33 %*	206 728	78	*59%*	353 389	109	*44%*
Ou Lang	743	59 053	15	*32 %*	178 684	66	*58%*	278 114	91	*47%*
Preaek Rumdeng	896	68 260	18	*33 %*	209 880	79	*59%*	359 138	111	*44%*
Svay Mu	911	69 212	19	*34 %*	213 509	81	*59%*	364 616	114	*44%*
Chi Pray	1 040	77 145	21	*34 %*	239 821	92	*60%*	405 764	129	*45%*
Phteah Veal	982	73 411	20	*34 %*	228 046	87	*60%*	386 969	122	*45%*
Slaeng	1 026	76 229	21	*34 %*	236 891	90	*60%*	401 110	127	*45%*
Chey	1 000	74 470	20	*34 %*	231 897	88	*60%*	392 899	124	*45%*
Khnar Sa	1 030	76 372	21	*34 %*	237 812	91	*60%*	402 296	128	*45%*
Preaek Rumdeng	961	72 245	19	*34 %*	223 385	85	*59%*	380 124	119	*45%*
Tnaot Kha	850	65 370	17	*33 %*	200 924	75	*59%*	312 880	104	*48%*
Kdei Thkar	1 051	77 953	21	*35 %*	242 529	93	*60%*	409 321	130	*45%*
Tnaot Ka	957	72 102	19	*34 %*	222 464	84	*59%*	378 938	119	*45%*
Samraong	883	67 380	18	*33 %*	207 705	78	*59%*	355 399	110	*44%*
Turi Kraom	1 106	81 165	22	*35 %*	253 382	97	*60%*	426 840	137	*46%*
Svay Kraom	1 100	80 951	22	*35 %*	252 350	97	*60%*	424 739	136	*46%*
Turi Kandal	1 085	79 999	22	*35 %*	249 365	96	*60%*	419 995	134	*46%*
Chras	988	74 040	20	*34 %*	229 134	87	*60%*	389 250	123	*45%*
Preaek Dambouk	1 036	77 002	21	*34 %*	238 900	91	*60%*	404 487	128	*45%*
Thma Da	1 094	80 321	22	*35 %*	251 262	96	*60%*	423 192	135	*46%*
Tnaot Kraom	1 140	83 211	23	*35 %*	280 523	102	*56%*	486 315	145	*41%*
Ta Mol	1 072	79 119	22	*35 %*	246 546	94	*60%*	416 166	133	*46%*
Kser	1 164	84 485	23	*35 %*	285 406	104	*56%*	494 255	148	*42%*
Pok Paen	1 407	112 038	29	*32 %*	335 689	125	*58%*	572 450	177	*44%*
Preaek Pou Kraom	1 194	86 388	24	*35 %*	291 321	106	*57%*	503 743	152	*42%*
Boeng Ting	1 605	124 515	33	*33 %*	377 072	142	*59%*	635 769	201	*45%*
Chong Boeng Krau	1 159	84 306	23	*35 %*	284 374	103	*56%*	492 154	147	*42%*
Preaek Rumdeng	1 468	115 880	30	*32 %*	348 274	130	*58%*	591 516	184	*44%*
Svay Leu	1 372	97 319	27	*36 %*	328 742	122	*58%*	560 952	173	*43%*
Veal	1 467	115 844	30	*32 %*	348 218	130	*58%*	591 426	184	*44%*
Kaoh Touch	1 185	86 066	24	*35 %*	289 423	105	*56%*	501 190	151	*42%*
Kokir	1 280	91 953	26	*36 %*	309 543	114	*57%*	531 664	162	*43%*
Preaek Pou Leu	1 375	97 426	27	*36 %*	328 964	122	*58%*	562 047	173	*43%*
Treas	1 536	119 972	31	*33 %*	362 645	136	*59%*	613 597	193	*44%*
Ruessei Srok	1 554	121 031	32	*33 %*	366 496	137	*59%*	619 527	195	*44%*
Ta Kay	1 421	112 954	29	*32 %*	338 619	126	*58%*	577 103	179	*44%*
Ou Leav	1 302	93 155	26	*36 %*	314 260	116	*57%*	538 599	165	*43%*
Preaek Ouv	1 302	93 155	26	*36 %*	314 260	116	*57%*	538 599	165	*43%*
Preaek Dambouk	1 648	139 201	34	*30 %*	404 972	145	*56%*	680 859	206	*43%*
Chong Kaoh	1 644	126 739	34	*33 %*	384 940	145	*59%*	648 544	206	*45%*
Kaoh Kou	1 659	127 691	34	*33 %*	387 925	146	*59%*	653 288	207	*45%*
Kbal Kaoh	1 502	117 926	31	*32 %*	355 809	133	*58%*	602 924	189	*44%*

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Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Sya Ampil	1 862	139 931	38	*34 %*	460 189	167	*56%*	718 618	232	*46%*
Krouch Saeuch	1 670	128 499	34	*33 %*	390 633	147	*59%*	656 846	209	*45%*
Svay Kandal	1 728	131 819	35	*33 %*	432 256	155	*55%*	675 460	216	*45%*
Chong Boeng	1 892	154 153	38	*31 %*	485 270	169	*54%*	759 325	235	*44%*
Prey Totueng	1 988	147 757	40	*34 %*	486 335	178	*57%*	758 760	246	*46%*
Phteah Kandal	2 279	174 486	47	*33 %*	546 384	203	*58%*	852 282	281	*47%*
Pram Yam	2 037	150 754	41	*34 %*	496 156	182	*57%*	774 912	252	*47%*
Ta Meun	2 088	153 823	42	*35 %*	506 788	186	*57%*	791 244	259	*47%*
Svay Tboung	2 182	168 526	45	*33 %*	526 796	195	*57%*	821 537	270	*47%*
Ampil	2 176	180 631	45	*31 %*	544 231	194	*55%*	850 565	269	*45%*
Moan Dab Leu	1 107	93 520	24	*30 %*	273 192	98	*56%*	458 059	137	*43%*
Santey	2 142	166 266	45	*33 %*	518 229	191	*57%*	808 672	265	*47%*
Kamphlak	2 528	189 616	52	*34 %*	598 398	224	*58%*	932 668	311	*48%*
Tnaot Leu	2 487	187 319	51	*34 %*	589 775	221	*58%*	919 713	306	*48%*
Svay	2 294	175 437	48	*33 %*	550 013	204	*58%*	857 026	283	*47%*
Roka Tvear	2 621	195 432	54	*34 %*	617 708	232	*59%*	962 227	322	*48%*
Banteay	2 815	207 350	58	*35 %*	658 225	249	*59%*	1 025 094	345	*49%*
Phteah Kandal Leu	2 682	199 273	55	*34 %*	630 292	238	*59%*	981 936	329	*48%*
Cheung Doek	2 544	190 603	52	*34 %*	601 439	226	*58%*	937 593	313	*48%*
Sya Boeng Veaeng	2 832	208 373	58	*35 %*	661 321	251	*59%*	1 030 109	347	*49%*
Prey Tbeh	2 651	197 335	55	*34 %*	623 678	235	*59%*	972 358	326	*48%*
Pou	3 674	260 066	75	*36 %*	836 141	323	*61%*	1 301 007	448	*50%*
		8 679 454		***34%***	**27 213 448**		***58%***	**44 485 390**		***45%***
Stueng Trang										
Thmey	577	45 586	12	*32 %*	144 027	52	*55%*	257 133	74	*40%*
Spongsakachas	316	29 612	6	*27 %*	81 859	28	*53%*	128 078	39	*44%*
Ou Pralaoh	663	51 152	13	*33 %*	161 550	59	*57%*	284 320	84	*41%*
Sdau	172	21 142	4	*22 %*	51 918	15	*46%*	81 452	21	*37%*
Srae Sangkae	173	21 177	4	*22 %*	51 974	15	*46%*	81 543	21	*37%*
Bet Thnu	655	50 450	13	*33 %*	160 351	59	*57%*	281 858	83	*41%*
Sam Piengleu	233	24 568	5	*24 %*	64 503	21	*50%*	101 252	29	*41%*
Chek Chvea	226	24 318	5	*24 %*	62 716	20	*49%*	98 880	28	*40%*
Ou Kab Moan	626	48 583	12	*32 %*	153 848	56	*56%*	272 551	79	*41%*
Hungbromar	311	29 433	6	*27 %*	80 827	28	*53%*	125 977	38	*43%*
Khtuoy Buon	160	20 297	4	*20 %*	49 155	14	*45%*	77 804	20	*36%*
Stang Sakha	485	40 221	10	*31 %*	116 739	42	*57%*	195 176	61	*44%*
Veal Preah	168	20 584	4	*20 %*	50 997	15	*45%*	80 266	21	*37%*
Preah Andoung Pir	803	62 444	16	*33 %*	190 570	71	*58%*	297 734	99	*48%*
Ou Chek	321	30 205	7	*27 %*	82 836	28	*54%*	129 354	39	*44%*
Chrey Hay	404	35 249	8	*29 %*	100 193	36	*56%*	156 179	49	*46%*
Srae Ampov	182	21 499	4	*21 %*	53 871	16	*47%*	84 829	23	*38%*
Pratong	648	50 200	13	*33 %*	158 565	58	*56%*	279 577	82	*41%*
Phum Chetseb	343	31 407	7	*28 %*	87 553	30	*54%*	136 379	42	*44%*
Srae Rumduol	1 251	90 086	25	*35 %*	303 628	111	*57%*	522 176	159	*42%*
Pumtuob	559	44 527	11	*32 %*	132 142	49	*58%*	219 268	70	*45%*
Ou Ta Sek	712	57 115	15	*32 %*	172 015	63	*57%*	268 446	88	*47%*
Phnum Ampil	487	40 292	10	*31 %*	117 494	43	*58%*	196 000	61	*44%*
Sampiengkrom	598	47 167	12	*33 %*	148 044	53	*56%*	263 335	76	*40%*
Ta Ream	1 150	83 984	23	*35 %*	282 476	102	*56%*	489 602	147	*42%*
Thmei	543	43 540	11	*31 %*	129 102	48	*58%*	213 790	68	*45%*
Beak Anlung	2 656	197 513	55	*34 %*	624 655	235	*59%*	973 725	326	*48%*
Kilou Prampir	1 385	98 199	28	*36 %*	330 973	123	*58%*	565 515	175	*43%*
Samraong	1 553	120 995	32	*33 %*	365 741	137	*59%*	619 256	195	*44%*
Poun	544	43 576	11	*31 %*	129 157	48	*58%*	213 880	68	*45%*
Ou Ruessei	712	57 115	15	*32 %*	172 015	63	*57%*	268 446	88	*47%*
Andoung Pech	708	56 557	14	*32 %*	171 094	63	*57%*	267 260	87	*47%*
Veal Bampong	711	57 079	15	*32 %*	171 959	63	*57%*	267 712	87	*47%*
Ou Pir	3 335	239 227	68	*36 %*	765 682	294	*60%*	1 192 248	407	*50%*
Preah Andoung	793	62 086	16	*33 %*	188 561	70	*58%*	294 266	97	*48%*

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Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Areaks Tnaot	928	70 235	19	*34 %*	216 605	82	*59%*	369 631	115	*44%*
Voat	922	70 020	19	*34 %*	215 517	81	*59%*	367 350	115	*44%*
Thum	1 017	75 493	20	*34 %*	234 993	90	*60%*	398 557	126	*45%*
Boeng Kachout	1 104	81 094	22	*35 %*	253 271	97	*60%*	425 925	136	*46%*
Phum sampram	710	57 043	15	*32 %*	171 904	63	*57%*	267 531	87	*47%*
Ta Meung	871	66 536	18	*33 %*	204 941	77	*59%*	319 172	107	*48%*
Preaek Sangkae	888	67 974	18	*34 %*	208 681	79	*59%*	356 766	111	*44%*
Tnaot Ta Say	1 042	77 217	21	*34 %*	240 575	92	*60%*	405 944	129	*45%*
Phnum Montir	747	59 196	15	*32 %*	178 962	66	*58%*	279 300	92	*47%*
Doun Tor	1 224	88 291	25	*35 %*	297 935	109	*57%*	513 231	155	*42%*
Santich Kandal	1 302	93 155	26	*36 %*	314 260	116	*57%*	538 599	165	*43%*
Chheu Teu	1 120	82 081	23	*35 %*	256 955	99	*60%*	431 493	138	*46%*
Ou Prampir	1 301	93 119	26	*36 %*	313 561	115	*57%*	538 509	165	*43%*
Khtuoy Bei	909	69 140	18	*34 %*	212 698	80	*59%*	363 611	113	*44%*
Khtuoy Muoy	1 068	78 976	22	*35 %*	245 625	94	*60%*	414 980	132	*46%*
Kbal Ou	1 085	79 999	22	*35 %*	249 365	96	*60%*	419 995	134	*46%*
Boeng Ket Kraom	1 571	122 054	32	*33 %*	369 592	139	*59%*	625 186	197	*44%*
Tuol Sambuor	697	53 198	14	*34 %*	169 030	62	*57%*	295 638	88	*42%*
Tuol Pou	1 261	90 444	25	*35 %*	305 637	112	*57%*	525 644	160	*42%*
Phum Haprammuoy	1 858	139 788	38	*34 %*	459 268	166	*56%*	717 432	231	*46%*
Kilou Dab	963	72 316	19	*34 %*	224 196	85	*59%*	381 129	120	*45%*
Kaoh Kandal	1 067	78 941	22	*35 %*	245 569	94	*60%*	414 156	132	*46%*
Khtuoy Pir	1 154	84 127	23	*35 %*	283 397	103	*56%*	490 878	147	*42%*
Peam Knong	1 292	92 383	26	*35 %*	311 663	114	*57%*	535 312	164	*43%*
Peam Krau	1 071	79 084	22	*35 %*	246 491	94	*60%*	416 076	133	*46%*
Preaek Barang	1 122	82 153	23	*35 %*	276 672	100	*56%*	480 385	143	*41%*
Santich Lech	1 262	90 480	25	*35 %*	305 692	112	*57%*	525 734	160	*42%*
Andoung Svay	1 445	114 642	30	*32 %*	343 502	128	*58%*	584 490	182	*44%*
Anlong Samlei	1 059	78 240	21	*34 %*	243 727	93	*60%*	411 784	131	*45%*
Paprak	1 603	124 028	33	*33 %*	376 317	141	*59%*	635 589	201	*45%*
Preah	1 610	124 693	33	*33 %*	378 104	142	*59%*	637 870	202	*45%*
Lvea	1 819	137 563	37	*34 %*	451 455	163	*56%*	704 748	226	*46%*
Preaek Sangkae	1 500	117 854	31	*32 %*	354 999	133	*58%*	602 009	188	*44%*
Dei Doh	1 112	81 380	22	*35 %*	255 113	98	*60%*	429 031	137	*46%*
Ou Run	1 338	95 273	27	*36 %*	321 262	118	*57%*	550 278	169	*43%*
Khpob Ta Nguon	1 556	121 517	32	*33 %*	366 607	137	*59%*	620 352	195	*44%*
Ou Pram	985	73 518	20	*34 %*	228 268	87	*59%*	388 155	122	*45%*
Dei Leu	1 890	141 762	38	*34 %*	465 993	169	*56%*	727 191	235	*46%*
Preaek Tok	1 625	125 645	33	*33 %*	381 034	143	*59%*	642 524	203	*45%*
Meakh Pir	1 880	140 990	38	*34 %*	464 040	168	*56%*	724 547	234	*46%*
Ou Leu	1 677	128 750	34	*33 %*	391 721	148	*59%*	659 037	209	*45%*
Soupheas	1 746	132 877	35	*33 %*	436 107	157	*55%*	681 390	218	*45%*
Boeng Ket Leu	1 506	118 069	31	*32 %*	356 086	133	*58%*	604 200	189	*44%*
Preaek Sdei	1 012	75 314	20	*34 %*	234 017	89	*60%*	396 547	125	*45%*
Angkaol	1 925	143 844	39	*34 %*	472 940	172	*56%*	738 689	239	*46%*
Dei Kraham	1 821	137 635	37	*34 %*	451 566	163	*56%*	705 019	226	*46%*
Phum Kilou Bei	2 022	149 803	41	*34 %*	493 171	181	*57%*	770 077	251	*46%*
Preaek Roluos	1 954	145 711	40	*34 %*	479 443	175	*56%*	747 996	242	*46%*
Santich Kaeut	1 977	146 949	40	*34 %*	483 627	177	*56%*	755 292	245	*46%*
Tuol Roka	1 790	135 696	36	*34 %*	444 897	160	*56%*	695 350	223	*46%*
Meakh Bei	2 118	164 578	44	*33 %*	513 346	189	*57%*	800 732	262	*47%*
Srab	2 266	173 606	47	*33 %*	544 208	202	*58%*	848 543	280	*47%*
Meakh Muoy	2 122	164 721	44	*33 %*	514 267	189	*57%*	801 918	262	*47%*
Preaek Kak	2 828	208 230	58	*35 %*	660 400	250	*59%*	1 028 833	347	*49%*
Bos Pou	2 258	173 319	47	*33 %*	542 366	201	*58%*	846 081	279	*47%*
Ou Veay	2 603	194 373	54	*34 %*	613 912	231	*59%*	957 121	320	*48%*
Preaek Preah Angk	2 502	188 271	52	*34 %*	592 760	222	*58%*	924 456	308	*48%*
Preaek Bak	3 007	219 196	62	*35 %*	697 876	266	*60%*	1 086 223	368	*49%*
Boeng Daeng	3 090	224 240	63	*35 %*	714 589	273	*60%*	1 113 048	378	*49%*
Trapeang Chhuk	3 724	263 099	76	*36 %*	846 717	328	*61%*	1 317 339	454	*50%*

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Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Ou Beng	4 503	310 464	91	*37 %*	1 008 197	395	*62%*	1 567 612	547	*51%*
		9 267 572		***34%***	**29 244 479**		***58%***	**47 507 502**		***46%***
Tboung Khmum										
Ta Kaeb	152	19 596	4	*19 %*	47 956	14	*44%*	75 342	19	*36%*
Boeng kak	172	21 142	4	*22 %*	51 918	15	*46%*	81 452	21	*37%*
Kraoy Voat	206	23 188	4	*23 %*	58 754	18	*48%*	92 770	26	*40%*
Aekkapheap	216	23 545	5	*23 %*	60 763	19	*49%*	95 594	27	*40%*
Phum	200	22 558	4	*22 %*	57 722	18	*48%*	90 669	25	*39%*
Tahuy	372	33 274	8	*29 %*	93 468	33	*55%*	145 777	45	*45%*
Ta Trav	337	31 193	7	*28 %*	85 877	30	*54%*	134 922	41	*44%*
Eisant Mean Chey	203	22 665	4	*22 %*	58 588	18	*48%*	91 764	25	*39%*
Samraong	229	24 425	5	*24 %*	63 582	20	*50%*	99 976	28	*41%*
Boeng Preah	393	34 440	8	*29 %*	97 485	34	*55%*	152 712	48	*46%*
Veal Lech	283	27 601	6	*26 %*	75 023	25	*52%*	117 404	35	*43%*
Phum Prammuoy	348	31 586	7	*28 %*	88 585	31	*54%*	138 480	43	*45%*
Rung	324	30 313	7	*27 %*	83 702	29	*54%*	130 450	40	*44%*
Tuol Kaev	375	33 382	8	*29 %*	93 634	33	*55%*	146 782	46	*45%*
Poun	392	34 405	8	*29 %*	97 429	34	*55%*	152 531	48	*46%*
Tuol Dambang	362	32 502	7	*28 %*	91 459	32	*55%*	143 043	44	*45%*
Veal	185	21 607	4	*21 %*	54 737	17	*47%*	85 925	23	*38%*
310	394	34 476	8	*29 %*	98 184	35	*56%*	152 802	48	*45%*
Khtum Lech	423	36 343	9	*30 %*	104 043	37	*56%*	162 109	51	*46%*
Boeng Tral	505	41 351	10	*31 %*	120 701	44	*58%*	201 930	63	*44%*
Chrouy Sralau	381	33 596	8	*28 %*	95 365	34	*55%*	148 973	46	*45%*
Tep Nimitt	492	40 471	10	*31 %*	118 470	43	*58%*	197 367	61	*44%*
Phum Buon	279	27 458	6	*26 %*	74 102	25	*52%*	116 128	34	*43%*
Pram Damleung	1 262	90 480	25	*35 %*	305 692	112	*57%*	525 734	160	*42%*
Tuol Thmei	449	38 103	9	*30 %*	109 093	39	*57%*	183 497	56	*43%*
Chheu Teal Chrum	471	39 305	10	*31 %*	113 809	41	*57%*	190 522	59	*44%*
Chan Tum	21	11 591	3	*4 %*	20 190	5	*13%*	33 189	8	*12%*
Andoung Poung	547	44 098	11	*32 %*	129 379	48	*58%*	214 976	68	*45%*
Damnak Popel	495	40 578	10	*31 %*	118 692	43	*57%*	198 463	62	*44%*
Toul Vihear	393	34 440	8	*29 %*	97 485	34	*55%*	152 712	48	*46%*
PhnomLok	373	33 310	8	*29 %*	93 523	33	*55%*	146 601	46	*45%*
PhumDab Prambei	378	33 489	8	*28 %*	94 500	33	*55%*	147 878	46	*45%*
Mochchhuem	483	40 149	10	*31 %*	116 573	42	*57%*	194 814	61	*44%*
Speam Chheu	487	40 292	10	*31 %*	117 494	43	*58%*	196 000	61	*44%*
Kandal	466	39 126	10	*31 %*	112 833	41	*57%*	189 156	58	*44%*
Trapeang Sangkae	665	51 223	13	*33 %*	162 304	59	*57%*	285 145	84	*41%*
Chrouy Changhar	517	42 195	11	*31 %*	123 464	45	*58%*	205 578	64	*44%*
Khnar	588	46 394	12	*32 %*	146 035	52	*56%*	260 601	75	*40%*
Phum Pram Dab	399	34 655	8	*29 %*	99 161	35	*56%*	154 722	49	*46%*
Ponley Chuor	477	39 520	10	*30 %*	114 897	42	*57%*	192 713	60	*44%*
Ponley Phsar	469	39 233	10	*31 %*	113 698	41	*57%*	190 251	59	*44%*
Trach	453	38 246	9	*30 %*	110 014	40	*57%*	185 417	57	*43%*
Prey Chongruk	547	44 098	11	*32 %*	129 379	48	*58%*	214 976	68	*45%*
Sampov Phustmei	465	39 090	10	*31 %*	112 777	41	*57%*	189 065	58	*44%*
Damrel Ti Buon	521	42 338	11	*31 %*	124 385	46	*58%*	206 764	65	*45%*
Svay Tipv	568	45 264	11	*32 %*	142 074	51	*55%*	253 847	72	*40%*
Krachhan	564	45 121	11	*32 %*	141 153	50	*55%*	252 570	72	*39%*
Tuek Chenh	578	45 622	12	*32 %*	144 082	52	*55%*	257 224	74	*40%*
Phum Prambei	372	33 274	8	*29 %*	93 468	33	*55%*	145 777	45	*45%*
Chi Peang	684	52 318	14	*33 %*	166 211	61	*57%*	291 165	86	*42%*
Khlaong	565	45 157	11	*32 %*	141 264	50	*55%*	252 842	72	*39%*
Andoung Pok	634	49 284	13	*33 %*	155 690	57	*56%*	275 013	80	*41%*
Khtum Kaeut	379	33 525	8	*28 %*	94 555	33	*55%*	147 968	46	*45%*
Prasrae Leu	585	46 287	12	*32 %*	145 869	52	*56%*	259 596	75	*40%*
Phum Prammuoy	515	42 124	10	*32 %*	123 298	45	*58%*	204 573	64	*44%*
Kamraeng	614	48 154	12	*33 %*	151 729	55	*56%*	268 903	78	*40%*

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Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Peam Knong	655	50 450	13	*33 %*	160 351	59	*57%*	281 858	83	*41%*
Trapeang Chak	589	46 430	12	*32 %*	146 790	53	*56%*	260 782	75	*40%*
Chruoy Kor	636	49 356	13	*33 %*	156 445	57	*56%*	275 838	81	*41%*
Kokir	610	47 596	12	*32 %*	150 807	54	*56%*	267 626	78	*40%*
Chi Kor	480	39 627	10	*30 %*	115 707	42	*57%*	193 719	60	*44%*
Ae Out	688	52 461	14	*33 %*	167 132	61	*57%*	292 442	87	*42%*
Andoung Lve	709	57 007	15	*32 %*	171 149	63	*57%*	267 350	87	*47%*
Ta Bang	604	47 382	12	*32 %*	149 720	54	*56%*	265 435	77	*40%*
Phum Prambei	776	61 063	16	*33 %*	185 465	69	*58%*	288 607	95	*48%*
Trabos	618	48 297	12	*33 %*	152 650	55	*56%*	270 089	78	*41%*
Veal Khnach	666	51 259	13	*33 %*	162 415	59	*57%*	285 416	84	*41%*
Phum Prambei Dab	553	44 313	11	*32 %*	131 110	48	*58%*	217 257	69	*45%*
811	622	48 440	12	*33 %*	153 571	56	*56%*	271 365	79	*41%*
Chheu Teal Ti Pir	740	58 531	15	*32 %*	177 819	66	*58%*	277 019	91	*47%*
Trapeang Thum	719	57 365	15	*32 %*	173 158	64	*57%*	270 818	89	*47%*
Prayab	535	43 254	11	*32 %*	127 260	47	*58%*	211 327	67	*45%*
Anhchaeum	697	53 198	14	*34 %*	169 030	62	*57%*	295 638	88	*42%*
Veah	713	57 150	15	*32 %*	172 070	63	*57%*	268 536	88	*47%*
Mong Ti Prammuoy	709	57 007	15	*32 %*	171 149	63	*57%*	267 350	87	*47%*
Chirou Kandal	680	52 175	14	*33 %*	165 290	61	*57%*	289 979	86	*42%*
Tumnob Senchey	993	74 219	20	*34 %*	230 111	88	*60%*	390 527	123	*45%*
Thnong	776	61 063	16	*33 %*	185 465	69	*58%*	288 607	95	*48%*
Chong Angkrang	663	51 152	13	*33 %*	161 550	59	*57%*	284 320	84	*41%*
Pnov	738	58 459	15	*32 %*	177 708	66	*58%*	276 748	91	*47%*
Khtum Kandal	181	21 464	4	*21 %*	53 816	16	*47%*	84 649	23	*38%*
Chirou Kraom Muoy	560	44 563	11	*32 %*	132 198	49	*58%*	219 448	70	*45%*
Chrab	748	59 232	15	*32 %*	179 661	67	*58%*	280 125	92	*47%*
Boeng Kambaor	544	43 576	11	*31 %*	129 157	48	*58%*	213 880	68	*45%*
Chambak	1 306	93 298	26	*36 %*	314 537	116	*57%*	539 875	165	*43%*
Tuol Kampot Ti	724	57 544	15	*32 %*	174 134	64	*57%*	272 094	89	*47%*
Chheu Teal Ti	810	63 109	17	*33 %*	192 357	72	*58%*	300 015	100	*48%*
11-Oct	702	56 342	14	*32 %*	170 062	63	*57%*	265 159	87	*47%*
Pratheat	510	41 530	10	*31 %*	122 321	45	*58%*	203 206	64	*44%*
Sameakki	788	61 493	16	*32 %*	187 585	70	*58%*	292 990	97	*48%*
Thmei	821	63 503	17	*33 %*	194 365	73	*58%*	303 483	101	*48%*
Prey Totueng	710	57 043	15	*32 %*	171 904	63	*57%*	267 531	87	*47%*
Tuol Kandal	671	51 438	13	*33 %*	163 392	60	*57%*	286 783	85	*41%*
Chamraeun	863	66 250	18	*33 %*	203 099	76	*59%*	316 709	106	*48%*
Phum Pir	497	41 065	10	*31 %*	119 502	44	*58%*	199 468	62	*44%*
Pring	795	62 158	16	*33 %*	189 371	71	*58%*	295 271	98	*48%*
Tonle Bet Leu	762	60 148	16	*32 %*	182 591	68	*58%*	284 778	94	*47%*
Boeng Pruol Leu	846	65 227	17	*33 %*	200 003	75	*59%*	311 694	104	*48%*
Chi Kae	763	60 184	16	*32 %*	182 646	68	*58%*	284 869	94	*47%*
Lvea Touch	719	57 365	15	*32 %*	173 158	64	*57%*	270 818	89	*47%*
Riev	803	62 444	16	*33 %*	190 570	71	*58%*	297 734	99	*48%*
Chirou Kraom Pir	481	40 078	10	*31 %*	115 818	42	*57%*	193 899	60	*44%*
Phum Prammuoy	580	46 108	12	*32 %*	144 193	52	*55%*	257 495	74	*40%*
Trapeang Snao	787	61 457	16	*32 %*	187 529	70	*58%*	292 165	97	*48%*
Preaek Touch	943	71 186	19	*34 %*	220 234	83	*59%*	374 375	117	*45%*
Bat Sla Snab	714	57 186	15	*32 %*	172 181	63	*57%*	268 807	88	*47%*
Kbal Ou	761	60 112	16	*32 %*	181 836	67	*58%*	283 864	94	*47%*
Tuol Kandal	874	67 058	18	*33 %*	205 807	77	*59%*	320 267	107	*48%*
Chuor Kandal	828	64 168	17	*33 %*	196 152	73	*58%*	305 855	102	*48%*
Seh	875	67 094	18	*33 %*	205 862	77	*59%*	321 001	107	*48%*
Chrak Poun	889	68 010	18	*34 %*	208 737	79	*59%*	356 857	111	*44%*
Pou Roung	772	60 505	16	*32 %*	184 544	69	*58%*	287 421	95	*47%*
Somrum	631	49 177	13	*33 %*	154 825	56	*56%*	273 918	80	*41%*
Roka Thum	795	62 158	16	*33 %*	189 371	71	*58%*	295 271	98	*48%*
Chob Ti Muoy	873	67 023	18	*33 %*	205 052	77	*59%*	319 996	107	*48%*
Angkor Chea	811	63 145	17	*33 %*	192 412	72	*58%*	300 196	100	*48%*

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Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Sralab	913	69 283	19	*34 %*	213 620	81	*59%*	364 797	114	*44%*
Damnak Char	864	66 286	18	*33 %*	203 798	77	*59%*	316 800	106	*48%*
Peuk	982	73 411	20	*34 %*	228 046	87	*60%*	386 969	122	*45%*
Kok	1 037	77 038	21	*34 %*	239 599	92	*60%*	404 668	128	*45%*
Chirou Leu	801	62 373	16	*33 %*	190 403	71	*58%*	296 728	98	*48%*
Lvea Thum	725	57 994	15	*32 %*	174 834	65	*57%*	272 185	89	*47%*
Poun	884	67 416	18	*33 %*	207 760	78	*59%*	355 490	110	*44%*
Mong Ti Prampir	895	68 224	18	*33 %*	209 824	79	*59%*	359 048	111	*44%*
Masin Srov	721	57 437	15	*32 %*	173 913	64	*57%*	270 999	89	*47%*
Slaeng	896	68 260	18	*33 %*	209 880	79	*59%*	359 138	111	*44%*
Kampong Ruessei	915	69 355	19	*34 %*	214 430	81	*59%*	365 802	114	*44%*
Chan Toung	902	68 475	18	*33 %*	211 555	80	*59%*	361 239	112	*44%*
Lngieng	888	67 974	18	*34 %*	208 681	79	*59%*	356 766	111	*44%*
Koul	984	73 482	20	*34 %*	228 213	87	*60%*	387 330	122	*45%*
Thma Pech Ti	1 061	78 311	21	*34 %*	244 482	94	*60%*	412 608	131	*46%*
Tuol Sambour	1 046	77 360	21	*34 %*	241 497	92	*60%*	407 221	129	*45%*
Trapeang Krapeu	1 022	76 086	21	*34 %*	235 970	90	*60%*	399 834	127	*45%*
Nikom Kraom	853	65 477	17	*33 %*	201 090	75	*59%*	313 242	104	*48%*
Bat Dei Kraom	1 190	86 245	24	*35 %*	290 400	106	*57%*	502 467	151	*42%*
Ta Trav	916	69 390	19	*33 %*	214 485	81	*59%*	365 892	114	*44%*
Tuol Kor	1 034	76 516	21	*34 %*	238 733	91	*60%*	403 572	128	*45%*
Roka Khmuoch	993	74 219	20	*34 %*	230 111	88	*60%*	390 527	123	*45%*
Dang Kambet	1 115	81 487	22	*35 %*	255 280	98	*60%*	429 393	138	*46%*
Kbal Boeng Seh	1 050	77 503	21	*34 %*	241 774	92	*60%*	408 407	130	*45%*
Sangkom Thmei	1 009	75 206	20	*34 %*	233 795	89	*60%*	395 451	125	*45%*
Koun Tnaot	1 039	77 109	21	*34 %*	239 765	92	*60%*	405 673	129	*45%*
Kampong Chanloh	952	71 508	19	*34 %*	221 488	84	*59%*	377 571	118	*45%*
Tuol Kampot Ti Bei	1 747	132 913	35	*33 %*	436 163	157	*55%*	681 480	218	*45%*
Veal Kandieng	1 118	94 328	24	*30 %*	275 256	98	*56%*	461 617	138	*43%*
Phum Saeprambei	781	61 242	16	*33 %*	186 442	69	*58%*	290 618	96	*48%*
Roka Khmuoch	666	51 259	13	*33 %*	162 415	59	*57%*	285 416	84	*41%*
Prey Kampeaeng	885	67 452	18	*33 %*	207 816	78	*59%*	355 580	110	*44%*
Preah Angk	2 524	189 473	52	*34 %*	597 477	224	*58%*	931 482	311	*48%*
Prasrae Kraom	855	65 549	17	*33 %*	201 901	76	*59%*	314 247	105	*48%*
sambuor	963	72 316	19	*34 %*	224 196	85	*59%*	381 129	120	*45%*
Thnong	1 091	80 214	22	*35 %*	250 452	96	*60%*	422 186	135	*46%*
Phum Dabprambei	775	61 028	16	*33 %*	184 766	69	*58%*	288 517	95	*48%*
Doung Preah	787	61 457	16	*32 %*	187 529	70	*58%*	292 165	97	*48%*
Khnach Krasang	1 078	79 334	22	*35 %*	247 578	95	*60%*	417 623	133	*46%*
Tuol Thmei	1 285	92 132	26	*36 %*	310 520	114	*57%*	533 031	163	*43%*
Chob Ti Pir	1 055	78 096	21	*35 %*	243 450	93	*60%*	410 507	131	*45%*
Phum Mphey	935	70 485	19	*34 %*	218 391	83	*59%*	371 913	116	*44%*
Phum	953	71 959	19	*34 %*	222 187	84	*59%*	377 662	118	*45%*
Tuol Trea Tboung	999	74 434	20	*34 %*	231 842	88	*60%*	392 808	124	*45%*
Preaek Phdau	953	71 959	19	*34 %*	222 187	84	*59%*	377 662	118	*45%*
Chant Nimitt	1 103	81 058	22	*35 %*	253 160	97	*60%*	425 744	136	*46%*
Nikom Leu	1 116	81 938	23	*35 %*	256 034	98	*60%*	430 217	138	*46%*
Chies Ti Muoy	1 030	76 372	21	*34 %*	237 812	91	*60%*	402 296	128	*45%*
Phum	859	66 107	18	*33 %*	202 178	76	*59%*	315 523	105	*48%*
Vihear Khpos	1 789	135 660	36	*34 %*	444 841	160	*56%*	695 260	223	*46%*
Smaonh	1 161	84 377	23	*35 %*	284 541	103	*56%*	493 160	148	*42%*
Angk Kaev	1 102	81 022	22	*35 %*	253 105	97	*60%*	425 564	136	*46%*
Kor	1 227	88 398	25	*35 %*	298 102	109	*57%*	514 236	156	*42%*
Kampong Chanloh	1 088	80 107	22	*35 %*	250 230	96	*60%*	421 091	134	*46%*
Stueng Penh	1 012	75 314	20	*34 %*	234 017	89	*60%*	396 547	125	*45%*
Cheung Khal	1 116	81 938	23	*35 %*	256 034	98	*60%*	430 217	138	*46%*
Kandal	1 102	81 022	22	*35 %*	253 105	97	*60%*	425 564	136	*46%*
Phum Prammuoy	1 004	75 028	20	*34 %*	232 818	89	*60%*	394 085	124	*45%*
Trapeang Kur	1 044	89 607	24	*30 %*	259 852	92	*55%*	438 078	129	*42%*
Vihear Sambour	1 343	95 451	27	*36 %*	322 239	119	*58%*	551 645	170	*43%*

LOAD FORECAST

Scenario 24h

Settlement name		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Veal Vong	1 030	76 372	21	*34 %*	237 812	91	*60%*	402 296	128	*45%*
Trapeang Dom	1 258	90 337	25	*35 %*	304 771	112	*57%*	524 548	160	*42%*
Vihear Kraom	1 236	89 135	25	*35 %*	300 055	110	*57%*	517 523	157	*42%*
Cheung Chrang	1 471	115 987	30	*32 %*	349 139	130	*58%*	592 702	185	*44%*
Chhuk Sandal	1 205	87 196	24	*35 %*	294 029	107	*57%*	507 301	153	*42%*
Phum Dabpram	1 115	81 487	22	*35 %*	255 280	98	*60%*	429 393	138	*46%*
Chheu Teal Touch	1 201	87 053	24	*35 %*	293 108	107	*57%*	506 025	153	*42%*
Andoung Chea	1 340	95 344	27	*36 %*	322 017	119	*58%*	550 549	169	*43%*
Preaek Touch	1 287	92 204	26	*36 %*	310 631	114	*57%*	533 855	163	*43%*
Cheung Voat	1 379	97 984	28	*36 %*	329 885	122	*58%*	563 233	174	*43%*
Thma Pech Ti Pir	1 222	88 219	25	*35 %*	297 125	108	*57%*	512 869	155	*42%*
Kien Romiet	1 171	85 150	24	*35 %*	286 494	104	*56%*	496 446	149	*42%*
Veal Khmum	1 065	78 454	21	*34 %*	245 403	94	*60%*	413 885	132	*46%*
Thnal Thmei	1 657	127 619	34	*33 %*	387 759	146	*59%*	652 283	207	*45%*
Thma Pech Ti Bei	1 340	95 344	27	*36 %*	322 017	119	*58%*	550 549	169	*43%*
Mream Teak	1 424	113 061	29	*32 %*	339 429	126	*58%*	577 465	179	*44%*
Tuol Khsach	1 270	91 181	25	*35 %*	307 535	113	*57%*	528 196	161	*43%*
Phum Dabbuon	1 323	94 321	26	*36 %*	318 277	117	*57%*	545 534	167	*43%*
Angkor Chey	1 127	82 332	23	*35 %*	277 649	100	*56%*	482 395	144	*41%*
Chies Ti Pir	1 520	118 985	31	*32 %*	358 961	134	*58%*	608 763	191	*44%*
Doung	1 619	125 015	33	*33 %*	380 002	143	*59%*	640 423	203	*45%*
Preaek Chik	2 580	192 720	53	*34 %*	609 085	229	*59%*	949 181	317	*48%*
Doun Mau Kraom	1 469	115 916	30	*32 %*	348 385	130	*58%*	592 431	185	*44%*
Chob Krau	1 476	116 581	30	*32 %*	350 116	131	*58%*	594 622	186	*44%*
Tuol Ponley	1 510	118 627	31	*33 %*	357 008	133	*58%*	605 386	190	*44%*
Roung kou	1 497	117 747	31	*32 %*	354 832	133	*58%*	601 647	188	*44%*
Chrak Chambak	1 912	142 964	39	*34 %*	470 765	171	*56%*	734 950	238	*46%*
Chrey Bet Meas	1 632	125 895	33	*33 %*	382 177	144	*59%*	644 896	204	*45%*
Chruoy	1 831	137 992	37	*34 %*	453 575	164	*56%*	708 486	228	*46%*
Chong Ou	1 613	124 801	33	*33 %*	378 270	142	*59%*	638 232	202	*45%*
Tuol Trea Cheung	1 573	122 540	32	*33 %*	370 347	139	*59%*	625 367	197	*44%*
Ponnareay	1 595	123 742	33	*33 %*	374 475	141	*59%*	632 483	200	*45%*
Roka Pram Ti Pir	1 612	124 765	33	*33 %*	378 215	142	*59%*	638 141	202	*45%*
Thlok	1 895	141 941	38	*34 %*	467 025	170	*56%*	729 291	236	*46%*
Ta Pav	1 366	97 104	27	*36 %*	327 066	121	*58%*	558 851	172	*43%*
Doun Mau Leu	1 818	137 527	37	*34 %*	450 701	163	*56%*	704 567	226	*46%*
Pou Kel	1 628	125 752	33	*33 %*	381 899	144	*59%*	642 976	203	*45%*
Pong Tuek	1 707	130 652	35	*33 %*	428 239	154	*55%*	668 615	213	*45%*
Tonle Bet Kraom	1 568	121 946	32	*33 %*	369 370	139	*59%*	624 000	196	*44%*
Trapeang Khla	1 987	147 721	40	*34 %*	486 224	178	*57%*	758 579	246	*46%*
Cheung Lang	1 849	151 785	38	*31 %*	476 481	166	*54%*	745 364	230	*44%*
Srae Siem	2 177	168 348	45	*33 %*	525 176	194	*57%*	819 617	269	*47%*
Toung	2 246	184 794	47	*31 %*	558 713	200	*56%*	872 918	277	*45%*
Ta Pav Bampenh	2 286	174 736	47	*33 %*	548 170	204	*58%*	854 654	282	*47%*
Tuol Vihear	2 545	190 639	52	*34 %*	601 494	226	*58%*	937 683	313	*48%*
Phum Sounbuon	2 194	169 371	46	*33 %*	528 916	195	*57%*	825 185	271	*47%*
Slab Kdaong	2 601	194 301	54	*34 %*	613 102	231	*59%*	956 116	320	*48%*
Praphat	2 690	199 559	55	*34 %*	632 134	239	*59%*	984 399	330	*48%*
Thnal Bei Maetr	3 162	228 475	65	*35 %*	729 882	279	*60%*	1 136 316	387	*49%*
Suong Kaeut	3 002	218 603	61	*35 %*	696 900	266	*60%*	1 084 856	367	*49%*
Roka Pram Ti Muoy	4 177	290 505	84	*37 %*	940 558	367	*61%*	1 462 592	508	*51%*
Suong Lech	3 897	285 755	79	*35 %*	901 628	343	*60%*	1 403 667	474	*49%*
Trapeang Ruessei	4 748	325 866	96	*37 %*	1 059 290	416	*62%*	1 646 169	576	*51%*
Neameun Kheung	670	51 402	13	*33 %*	163 337	60	*57%*	286 602	85	*41%*
32	999	74 434	20	*34 %*	231 842	88	*60%*	392 808	124	*45%*
Trapeang Bei	872	66 987	18	*33 %*	204 997	77	*59%*	319 906	107	*48%*
Veal Tuek Chenh	1 046	77 360	21	*34 %*	241 497	92	*60%*	407 221	129	*45%*
Kbal Boeng	1 008	75 171	20	*34 %*	233 096	89	*60%*	395 361	125	*45%*
Sok San	744	59 089	15	*32 %*	178 740	66	*58%*	278 205	91	*47%*
Tlouk Pongro	648	50 200	13	*33 %*	158 565	58	*56%*	279 577	82	*41%*

LOAD FORECAST

Scenario 24h

		First year			Mid-term			Horizon		
	population	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
Khien Chak	717	57 293	15	*32 %*	172 991	64	*57%*	269 813	88	*47%*
Prekpeam	489	40 364	10	*31 %*	117 660	43	*57%*	196 362	61	*44%*
Toul Oupir	579	46 072	12	*32 %*	144 138	52	*55%*	257 405	74	*40%*
Tonle Bet	941	71 114	19	*34 %*	219 424	83	*59%*	374 013	117	*45%*
Yaysor	1 281	91 989	26	*36 %*	309 599	114	*57%*	531 754	162	*43%*
Veal Char	653	50 379	13	*33 %*	159 597	58	*56%*	281 677	83	*41%*
Kien Rung	430	36 594	9	*29 %*	105 187	38	*56%*	164 391	52	*46%*
		18 223 247		***33%***	**56 701 549**		***58%***	**93 192 025**		***45%***
Kampong Cham		**140 762 389**		***33%***	**439 664 225**		***58%***	**720 590 725**		***45%***

ANNEX 7 Survey templates of Khammuon (Village)

GENERAL INFORMATION ON THE VILLAGE/TOWN
(for chairman of settlement / community leader / official)

Location/Spatial characteristics

1	Date of survey:		Name of Enumerator:	
2	Rural Village/Town Name:			
	Province:		Longitude: Latitude:	
3	Total population in Village/Town:		Total HH in Village/Town :	

4	Access to the Village/Town by:	1	Asphalt road	4	Track road in bad state	
		2	Gravel road	5	Only by foot	
		3	Track road in good state	6	Other_____	

5 If Access by Road only by Track Road (4) and by foot (5) :

What is the distance to the closest Track Road in good state?	km	

Economic Characteristics

6 Range of incomes in the village / town (in Kips/month):	Minimum	
	Maximum	
	Average	

7 Main sources of income in the Village/Town (as %)

1. Agriculture/Fishing/Animal husbandry		3. Small Industry	
2. Commerce		4. Other, please specify:	

8 Principal Crops Grown in the Area: (Yes / No)

	Yes	No		Yes	No
1. Coffee			6. Cotton		
2. Rice			7. Sugarcane		
3. Corn			8. Other, please specify:		
4. Tobacco					
5. Eucalyptus					

9 Months of Harvest for principle crop: (Cross if applicable)

Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec

10 Number of activities in the Village/Town (provide number in the space given)

1. Mills		12. Health Post (drug kit)	
2. Coffee Processing		13. Primary Schools	
3. Oil presses		14. Secondary schools	
4. Restaurants/drink houses		15. Adult education	
5. Car/Motorcycle Mechanic		16. Worship area (temple, pagoda…)	
6. Wood Works		17. Government offices	
7. Metal Works		18. Telecommunications	
8. Shops		19. Power supplier	
9. Hotels		20. Battery recharging stations	
10. Hospitals / clinic		21. Number of Market Vendors	
11. Health Centre		22. Other:	

11 Number of irrigation pumps powered by a generator

12	Main Drinking Water Sources Used by the Village Population (number)				
	1. Borehole without pump			4. Open water source (river)	
	2. Borehole with Hand Pump			5. Other, please specify:	
	3. Borehole with generator powered pump				

13	Markets (cross if applicable)				
	1. No market			4. Permanent market (big)	
	2. Rural market (small)			5. Other, please specify:	
	3. Half permanent market				

Development associations and microcredit

14 Please cross if the following structures are active in the village:

1. Microcredit, please specify		3. NGOs, please specify:	

15 Village/Town Energy Profile

Please complete the table by answering the following questions regarding the energy profile within the Village/Town. (Note: Gensets are those that are only used for the household or business purposes of the owner. Electricity service providers are those that own a generator for the sale of electricity as a business to the surrounding community. It does not include formal electricity supply from a state-owned mini-grid.) If there are commercial power vendors in the Village/Town, please survey them.

	Gensets	Electricity Service Providers		Engines	Solar PV	Car Battery
		#1	#2			
How many are there in the Village/Town?						--
How many HHs do each provide with electricity?	--			--	--	--
How many businesses do they provide with electricity (excluding hospitals, clinics, and schools)?	--			--		--
When is the electricity provided? *give range 0-24 hrs. (i.e. 8-12 and 15-20).*	--			--		--
For how many hours is electricity provided, in total, throughout the day?	--			--		
What is the cost of service? (Kips/Month)	--			--		
Who administers the service? *(1=private operator, 2=Community, 3=Government, 4=NGO)*	--					

16 Fuel costs

	Kips / Litre
Kerosene price in Village/Town	
Diesel price in Village/Town	

17 Details of Electricity Service (if village has access to electricity)

i	Village/Town Electrified:	Yes	1		Year Electrified:	
		No	2			
ii	Total number of Households Connected				Total Number of Commercial activities connected?	
iii	Who provides the electricity service? (1- Utility 2- Co-operative, 3- Private, 4- Municipality):					
iv	For how many hours per day is the electricity service provided?					
v	Frequency of powercuts					
vi	For how many days per week is the formal electricity service provided?					
vii	Please provide the tariff details: (Kips / kWh)			Residential		
				Business		
				Small Industry		
viii	What is the connection fee?			Household		
				Business		
				Small Industry		
ix	Average Electricity Consumption per month (kWh):			Household		
				Business		
				Small Industry		
x	Average monthly energy bill (Kips):			Household		
				Business		
				Small Industry		
xi	Main uses of electricity in the village					

18 Comments

ANNEX 8 Survey templates of Khammuon (Businesses and services)

2: COMMERCIAL ACTIVITIES AND PUBLIC SERVICES

1 Area Identification

Date:	___/___/2007	Village / Town:	
Enumerator		Province:	

2 Activity Identification

1	*Mills/grinding engines*	11	Health Centre
2	*Coffee Processing*	*12*	Health Post
3	*Oil presses*	*13*	*Water pump*
4	*Restaurant*	*14*	*Telecommunications*
5	*Drink house / bar*	*15*	*Metal Works*
6	*Bakeries*	*16*	*Wood Works*
7	*Car Mechanic*	*17*	*Power supplier*
8	*Shop*	*18*	*Battery recharging stations*
9	*Hotel*	*19*	*Other, specify:*
10	School		_____

Name	
Activity Type	

Ownership of Activity/ Business	*1=Government, 2=Private, 3=Community 4-Other, specify below*	

3	Are there seasonal variations in this business/activity?	*1=Yes, 2=No*	

Operating in the year : please complete	**Full Operation**	**Partial Operation**	**Total shut-down**
Months of the year (specify months)			
Typical working hours per day			
Working days per week			
Days Closed per year (special holidays)			
Average Monthly Electricity Consumption (kWh)			

4 Ownership of Generating Equipment

Is the business/activity connected to an electricity service?	*1=Yes, 2=No*	
If yes, in which year was it connected?		
If yes, what is the average monthly bill? *(in Kips)*		
Please check the last bill and provide the electricity consumption for that month		
If there was a connection charge how much was it?		
If the business / activity in Q. 2 is power supply, please indicate the average monthly charge (in Kips)		
If yes, what is the total no° of connections to th is service?		
If the business / activity in Q. 2 is a battery charging station, please indicate the:		
cost / charge (in Kips):		
no° of charges per month:		
Does the business/activity own a generator / engine?	*1=Yes, 2=No*	
Does the business/activity own a Solar/PV system?	*1=Yes, 2=No*	
Does the business/activity make use of a car battery?	*1=Yes, 2=No*	

5	If not already electrified, does the Business have an interest in having a "formal" electricity service?	*1=Yes 2=No*	
5.1	If no, why not?	*(1= too expensive; 2= to far away; 3= no need; 4=other;_____)*	
6	Does the business have any preference as to who should provide such a service?	*1=Private Body 2=Community 3=Government Body 4=Other/Don't know*	
6.1	Why do you prefer this?	*(1= cheaper ; 2= more efficient; 3= Other, specify:_____)*	

7 Appliances, Energy and Cost

Equipment			When Used		Powered with	Fuel			Dry cells	
Type	Unit Power (W) (if relevant)	No°	*give range of hours 0-24:00. i.e. 8-12 and 15-20:00.*	*No° of hours used per day*	*1=Car Bat;2=Dry Cell; 3=Solar; 4=Genset. ;6=Electricity*	Quantity of kerosene purchased at a time (L)	Price per purchase (in Kips)	Total expenditure per month (in Kips)	Type of dry cell	Total expenditure per month (in Kips)
Kerosene Lamp	--				--				--	
Candles	--				--				--	
Incandescent bulb						Electricity				
Fluorescent bulbs						Electricity				
CFL Bulbs						Electricity				
Portable Radio	--					--				
Cassette Player						Electricity				
Fan						Electricity				
Rice cooker						Electricity				
TV B&W / Colour						Electricity				
VCD/Karaoke						Electricity				
Mobile Phone	--		--			Electricity				
Refrigerator						Electricity				
Other 1 :										
Other 2:										

8 Ownership of Generator or Engine

8.1 If the business/activity owns a Genset or engine, please answer the following question.

Number	**Total Capacity (W or HP)**		**Condition** *1=Good; 2=Average; 3=Poor*	**Age in years**	Fuel used *1=Diesel 2=Petrol 3=Other*	**Purchase Cost (Kips)**	**Is cost provided for for** *1=new 2=second-hand*	**First please ask the respondent if there are seasonal variations in the use of the genset(s)/motor. If Yes, please provide information for high and low seasons. If No, only complete the first line for each Genset.**							
								Indicate months representing High and Low season.	**Number of working days per week**	**No° of hours used per day**	**From what time to what time**	**Litres of fuel used per month**	Cost of fuel/litre	**Lubricant consumption, l/month**	**Cost of lubricant / litre**
		HP W						**All yr round**							
								H							
								L							
		HP W						**All yr round**							
								H							
								L							

Who maintains the Genset. *Is it the Owner (1), service provider in the village (2), Supplier (3), other (4). If other*	
On average, how many times per year does the Genset break down?	
Including transport, how much does it cost per year to maintain your Genset? *(in Kips)*	
If an overhaul is required, where is it carried out? *1= in the village, 2= in nearby town, 3= in district capital*	

8.2 If the business/activity makes use of a car battery(s), please answer the following questions. If not, go to 8.3

Numbe	Capacity (Amph)	Voltage	Age in years	Purchase Cost (Kips)	Cost for *1=new 2=second-hand*	Number of hours used per day	From what time to what time?	Location of charging station (Km)	Cost of a charge	Cost of transport to charging station and back	Number of charges / month

8.3 If the business/activity makes use of a solar/PV system, please answer the following questions.

Number	Total Capacity (Wp)	Manufacturer	Age in years	Condition. *1=Good 2=Average 3=Poor*	Purchase Cost	Distance from the village to place of purchase	Number of hours used per day	From what time to what time?

9 Comments

Thank you very much for your time.

Survey checked by Supervisor,
1= *yes, 2=no*

ANNEX 9 Survey templates of Khammuon (Household)

3: HOUSEHOLD INTERVIEW SCHEDULE

1. Area Identification

Date:	___/___/2007
Enumerator	

Village / Town:	
District:	
Province:	

2. Household Identification

Occupational Codes

1	Farmer	*5*	*Housewife*
2	*Government Official*	*6*	*Labourer or unskilled worker*
3	*Businessman/Trader*	*7*	*Retired/Pensioner*
4	*Craftsmen*	*8*	*Other*

Range of occupations in the household:	

3. Description of Household

Total number of People living in the Household for all the year (incl. children):	
Please indicate the number of household members in the age range of 0-18 yrs	

3.1 Building Profile

Walls	Roof	Ground around the house
Cement (3) Wood (2) Palm Leaves (1)	Tiles (3) Iron (2) Palm Leaves (1)	Tiles pavement (3) Cement (2) Mud floor (1)

Total Number of rooms		
Tenure System	*1=Owner, 2=Tenant*	
Duration of stay in years		

4 Electrification status

Does the household own a generator?	*1=Yes, 2=No*	
If yes, how many hours per day is the genset operated ?		h
What is the type of fuel? (1=kerosene, 2=diesel)		
How many liters of fuel are consumed per month ?		L
Average total expenditure per month (maintenance & fuel) in Kips		
Does the household own a Solar/PV system?	*1=Yes, 2=No*	
Average expenditure per month for maintenance in Kips		
Does the household make use of a car battery?	*1=Yes, 2=No*	
Total expenditure per month for battery charging in Kips		
Distance to battery charging station in kilometers		
Is the household connected to an electrical service?	*1=Yes, 2=No*	
If yes, how many hours per day is the service usually available ?		h
If yes, what is the average electricity bill per month in Kips		
Please ask to see the last bill(s) & get the average electricity consumption		kWh
Who provides the service? 1=Government, 2= Private, 3=The Community themselves, 4=other, (please specify) _____		

5 Interest in an Electricity Service (if not already electrified)

5.1	Does the HH have an interest in having a "formal" electricity service?	*1=Yes 2=No*	
	If no, why not?	*(1= too expensive; 2= to far away; 3= no need; 4=other;_____)*	

5.2	Does the HH have any preference as to who should provide such a service?	*1=Private Body 2=Community 3=Government Body 4=Other/Don't know*	
	Why do you prefer this?	*(1= cheaper ; 2= more efficient; 3= Other, specify:_____)*	
5.3	How much would the HH be willing to pay for the service per month ? (in Kips)		
	How much would the HH be willing to pay for the connection fee ? (in Kips)		

6. Household Income

	What is the income of the household in Kips per month ?	

7. Appliances, Energy and Cost

Equipment				When Used		Powered with	Fuel			Batteries, cells	
Type	Unit Power (W) (if relevant)	No already owned	No wanted after electrification (for unelectrified HH)	*give range of hours 0-24:00. i.e. 8-12 and 15-20:00.*	*No° of hours used per day*	*1=Car Bat;2=Dry Cell; 3=Solar; 4=Genset. ;6=Electricity*	Quantity purchased at a time (eg. 0,33 L, 0,833L, 1L etc.).	Number of purchases per month	Total expenditure per month (in Kips)	Type of battery or cell (AA, AAA, DC…)	Total expenditure per month (in Kips)
Kerosene Lamp	--		--			--				--	
Candles	--		--			--				--	
Charcoal	--									--	
Biomass	--									--	
Incandescent bu							Electricity				
Fluorescent bulbs							Electricity				
CFL Bulbs							Electricity				
Portable Radio	--						--				
Cassette Player							Electricity				
Fan							Electricity				
Rice cooker							Electricity				
B&W TV							Electricity				
Colour TV							Electricity				
VCD/Karaoke							Electricity				
Mobile Phone	--			--			Electricity				
Refrigerator							Electricity				
Other 1 :											
Other 2:											

8 Comments

Thank you very much for your time.

Survey checked by Supervisor,
1= *yes, 2=no*

LOAD FORECAST

Scenario 24h

Settlement name	population	First year Consumption (kWh)	First year Peak (kW)	First year Domestic share	Mid-term Consumption (kWh)	Mid-term Peak (kW)	Mid-term Domestic share	Horizon Consumption (kWh)	Horizon Peak (kW)	Horizon Domestic share
KHAMMOUAN										
Boualapha										
B.Xe-Nua	115	25 858	6	*49%*	39 361	11	*60%*	58 171	17	*64%*
B.Nakachan-Tha	115	25 858	6	*49%*	39 361	11	*60%*	58 171	17	*64%*
B.Kengsoung	116	25 895	6	*49%*	39 447	11	*60%*	58 321	17	*64%*
B.Nakachan-Thong	346	69 530	18	*53%*	123 142	33	*57%*	223 003	54	*50%*
B.Pakouay-Tai	96	23 039	5	*46%*	34 780	9	*57%*	51 064	15	*62%*
B.Phathoung	139	28 860	7	*51%*	45 482	13	*63%*	83 374	22	*55%*
B.Phonsavang	212	49 763	11	*45%*	76 395	20	*57%*	111 851	32	*62%*
B.Boliboun	142	28 970	7	*51%*	45 611	13	*63%*	83 574	22	*55%*
B.laboy	92	21 832	5	*44%*	33 325	9	*56%*	49 275	14	*61%*
B.Sivilai	214	49 837	11	*45%*	76 481	20	*57%*	112 001	32	*62%*
B.Khaythahan	87	21 649	5	*44%*	31 870	8	*54%*	47 486	13	*61%*
B.Nalouang	112	24 688	6	*47%*	37 992	10	*59%*	56 532	17	*64%*
B.Naphanang	339	68 212	18	*53%*	121 601	33	*57%*	221 064	53	*50%*
B.Thahe	191	36 072	10	*56%*	70 445	18	*55%*	118 365	29	*52%*
B.Chalou	177	34 497	9	*55%*	54 686	16	*66%*	97 688	27	*59%*
B.Taloua	92	21 832	5	*44%*	33 325	9	*56%*	49 275	14	*61%*
B.La-Ngi	92	21 832	5	*44%*	33 325	9	*56%*	49 275	14	*61%*
B.Thaplao-Nua	48	15 975	3	*33%*	22 581	5	*44%*	31 533	7	*50%*
B.Thaplao-Tai	15	11 582	3	*18%*	13 592	3	*18%*	17 519	4	*25%*
B.Nalouang	117	25 931	6	*49%*	39 490	11	*60%*	59 810	18	*65%*
B.Nam-Ok-hou	276	59 536	15	*50%*	91 806	26	*61%*	153 599	42	*59%*
B.Namthouy	160	31 752	8	*53%*	50 192	15	*64%*	90 731	24	*57%*
B.Vangnguak	260	56 828	14	*48%*	88 595	25	*60%*	146 692	40	*58%*
B.Mai	120	26 042	6	*49%*	40 859	11	*61%*	60 060	18	*65%*
B.Nong-Nia	151	30 361	8	*52%*	48 521	14	*64%*	87 152	23	*56%*
B.Kho	198	37 389	10	*57%*	72 029	19	*55%*	121 793	31	*53%*
B.Hintang	123	26 152	6	*49%*	40 988	11	*61%*	61 699	18	*65%*
B.Nongpalat	272	58 329	14	*49%*	91 634	26	*61%*	151 910	42	*59%*

ANNEX 10 Load forecast results of Khammuon

B.Sopbo-Noy	94	21 906	5	*44 %*	33 454	9	*56%*	49 475	14	*61%*
B.Pakouay	149	30 288	8	*52 %*	47 195	14	*63%*	87 003	23	*56%*
B.Kengtapa	140	28 897	7	*51 %*	45 525	13	*63%*	83 424	22	*55%*
B.Lat	181	34 644	9	*55 %*	56 098	17	*66%*	99 427	27	*59%*
B.Loumpoum	76	20 184	4	*42 %*	28 874	7	*52%*	42 318	11	*58%*
B.Nongkoung	53	16 159	3	*33 %*	24 079	5	*46%*	33 372	8	*52%*
B.Mouk	45	14 805	3	*29 %*	21 212	4	*41%*	29 894	7	*48%*
B.Vanglouang	36	14 474	3	*29 %*	19 541	4	*38%*	26 315	5	*44%*
B.Napeng	292	61 184	15	*50 %*	96 300	28	*62%*	159 166	44	*60%*
B.Kouangboun	267	58 145	14	*49 %*	90 136	25	*61%*	148 581	41	*58%*
B.Napoung	545	99 347	28	*58 %*	172 199	51	*64%*	304 307	84	*59%*
B.Natoy	148	30 251	8	*53 %*	47 109	14	*63%*	85 413	22	*56%*
B.Pakouay-Nua	80	20 331	4	*42 %*	30 286	7	*53%*	44 057	12	*59%*
B.Thachon-Khok	294	61 258	15	*50 %*	96 386	28	*62%*	160 756	45	*60%*
B.Thachon-Tha	249	55 364	13	*48 %*	85 598	24	*59%*	142 964	39	*57%*
B.Poungbon	139	28 860	7	*51 %*	45 482	13	*63%*	83 374	22	*55%*
B.Phakiat	231	52 582	12	*46 %*	81 018	22	*58%*	119 058	35	*63%*
B.Houaykha	167	33 070	9	*54 %*	51 733	15	*65%*	94 059	25	*58%*
B.Mouangsoum	99	23 150	5	*46 %*	34 910	9	*57%*	51 264	15	*62%*
B.houaytha	380	76 321	20	*53 %*	130 976	36	*59%*	194 600	57	*64%*
B.Naphianglan	72	18 977	4	*39 %*	28 702	7	*52%*	40 579	11	*57%*
B.Nasalouan	188	35 962	10	*56 %*	70 316	18	*55%*	118 165	29	*52%*
B.Kang	151	30 361	8	*52 %*	48 521	14	*64%*	87 152	23	*56%*
B.Lay	263	56 938	14	*48 %*	88 724	25	*60%*	148 331	40	*58%*
B.Tattou	89	21 722	5	*44 %*	33 196	9	*56%*	47 586	13	*61%*
B.Pa-Ak	57	17 366	3	*37 %*	24 251	5	*46%*	35 111	9	*53%*
B.Nongma	39	14 584	3	*29 %*	19 713	4	*38%*	28 055	6	*46%*
B.Ka-I	51	16 085	3	*33 %*	22 753	5	*44%*	33 272	8	*52%*

LOAD FORECAST

Scenario 24h

Settlement name	population	First year			Mid-term			Horizon		
		Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
B.Bounggnalao	39	14 584	3	*29 %*	19 713	4	*38%*	28 055	6	*46%*
B.Alao	23	11 876	3	*18 %*	16 459	3	*30%*	21 048	4	*34%*
B.Namchala	81	20 368	4	*42 %*	30 329	8	*53%*	44 107	12	*59%*
B.Nguk	64	17 623	3	*36 %*	25 835	6	*48%*	38 540	10	*56%*
B.Cheng	117	25 931	6	*49 %*	39 490	11	*60%*	59 810	18	*65%*
B.Phatan	47	15 938	3	*33 %*	22 538	5	*44%*	31 483	7	*50%*
B.Khouaymep	75	20 147	4	*42 %*	28 831	7	*52%*	42 268	11	*58%*
B.Phakeun	257	56 718	14	*49 %*	87 182	24	*60%*	144 953	39	*58%*
B.Paxiou	179	34 571	9	*55 %*	54 772	16	*66%*	97 837	27	*59%*
B.Chanon	95	23 003	5	*46 %*	34 737	9	*57%*	50 964	15	*62%*
B.Vat	198	37 389	10	*57 %*	72 029	19	*55%*	121 793	31	*53%*
B.Lachang	44	14 768	3	*29 %*	21 169	4	*41%*	29 844	7	*48%*
B.Hong	86	21 612	5	*44 %*	31 827	8	*55%*	47 386	13	*61%*
B.Thangbeng	112	24 688	6	*47 %*	37 992	10	*59%*	56 532	17	*64%*
B.San	134	27 616	7	*50 %*	43 984	13	*62%*	80 045	20	*54%*
B.Houayhet	120	26 042	6	*49 %*	40 859	11	*61%*	60 060	18	*65%*
B.Kato	253	55 511	13	*48 %*	85 770	24	*59%*	143 263	39	*57%*
B.Houaypa	380	76 321	20	*53 %*	130 976	36	*59%*	194 600	57	*64%*
B.Hinlup	165	31 936	8	*53 %*	51 647	15	*65%*	92 470	25	*58%*
B.Namsin	108	24 541	6	*48 %*	37 820	10	*59%*	56 282	16	*64%*
B.Kalet	167	33 070	9	*54 %*	51 733	15	*65%*	94 059	25	*58%*
B.Thom	46	15 901	3	*33 %*	22 495	5	*44%*	29 944	7	*48%*
B.Phaxong	101	23 223	5	*46 %*	34 996	9	*57%*	52 803	15	*63%*
B.That	488	91 952	25	*56 %*	158 329	46	*63%*	281 197	75	*57%*
B.Langkhang	484	90 744	25	*56 %*	156 917	46	*62%*	279 508	75	*57%*
B.Nongboua	406	80 457	21	*54 %*	137 141	38	*60%*	247 702	63	*53%*
B.Phanop	208	49 616	11	*45 %*	74 983	20	*56%*	110 162	31	*61%*
B.Nahom	461	87 779	24	*56 %*	150 882	43	*62%*	270 562	71	*56%*
B.Dou	118	25 968	6	*49 %*	39 533	11	*60%*	59 910	18	*65%*
B.Maivangkouan	148	30 251	8	*53 %*	47 109	14	*63%*	85 413	22	*56%*
B.Thongxam-Kang	295	62 355	16	*51 %*	96 429	28	*62%*	160 806	45	*60%*
B.Xam-Tai	218	51 044	12	*46 %*	77 936	21	*57%*	115 230	33	*62%*
B.Nongseng	307	63 856	16	*51 %*	99 468	29	*62%*	166 023	47	*61%*
B.Nongno	63	17 586	3	*36 %*	25 792	6	*48%*	37 050	9	*54%*
B.Thaxang	163	31 862	8	*53 %*	51 561	15	*65%*	92 370	25	*58%*
B.Vangmaneu	315	65 210	17	*52 %*	102 335	30	*63%*	169 552	48	*61%*
B.Senphan	464	87 889	24	*55 %*	152 251	44	*62%*	270 762	71	*56%*
B.Kacham-Gnai	493	92 135	25	*56 %*	159 827	47	*63%*	283 086	76	*57%*
B.Natangchai	206	49 543	11	*45 %*	74 897	20	*56%*	110 012	31	*62%*
B.Pa-Ang	143	29 007	7	*51 %*	45 654	13	*62%*	83 624	22	*55%*
B.Thong	581	104 910	30	*59 %*	217 938	56	*54%*	318 520	89	*60%*
B.Xok	269	58 219	14	*49 %*	90 222	25	*60%*	150 170	41	*58%*
B.Kengvak	113	24 724	6	*47 %*	38 035	10	*59%*	58 021	17	*65%*
B.Nakop	684	149 420	36	*48 %*	243 836	65	*57%*	359 372	104	*62%*
B.Khayou	177	34 497	9	*55 %*	54 686	16	*66%*	97 688	27	*59%*
B.Tonphao	475	90 414	25	*56 %*	155 247	45	*62%*	275 929	73	*56%*
B.Phonsangphai	187	35 925	10	*56 %*	70 273	18	*55%*	116 675	29	*52%*
B.Kang	315	65 210	17	*52 %*	102 335	30	*63%*	169 552	48	*61%*
B.Pakphanang-Kao	197	37 352	10	*57 %*	71 986	19	*55%*	121 743	31	*53%*
B.Nave	221	51 154	12	*46 %*	78 065	21	*57%*	115 430	33	*62%*
B.Nakhagnom	357	73 356	19	*52 %*	124 898	34	*58%*	185 604	54	*63%*
B.Napang	158	31 679	8	*54 %*	50 063	15	*64%*	90 481	24	*57%*
B.Thasa-At	455	87 558	24	*56 %*	149 341	43	*61%*	267 183	70	*56%*
B.Talong	373	75 004	19	*52 %*	129 392	35	*58%*	192 611	57	*64%*
B.Napang-Noy	98	23 113	5	*46 %*	34 867	9	*57%*	51 164	15	*62%*
B.Gnavet	112	24 688	6	*47 %*	37 992	10	*59%*	56 532	17	*64%*
B.Nongping-Nua	342	68 323	18	*53 %*	121 730	33	*57%*	222 703	54	*50%*
B.Phon	488	91 952	25	*56 %*	158 329	46	*63%*	281 197	75	*57%*
B.Thongkham	467	89 060	24	*56 %*	152 380	44	*62%*	272 401	72	*56%*
B.Nachat	344	68 396	18	*53 %*	121 816	33	*57%*	222 853	54	*50%*

LOAD FORECAST

Scenario 24h

Settlement name	population	First year Consumption (kWh)	First year Peak (kW)	First year Domestic share	Mid-term Consumption (kWh)	Mid-term Peak (kW)	Mid-term Domestic share	Horizon Consumption (kWh)	Horizon Peak (kW)	Horizon Domestic share
B.Mai	109	24 577	6	*47%*	37 863	10	*59%*	56 332	16	*64%*
B.Vangkhon	90	21 759	5	*44%*	33 239	9	*56%*	47 686	13	*60%*
B.Naphao	567	103 336	29	*58%*	214 813	55	*54%*	313 153	87	*59%*
B.Sa-Ang	427	83 349	22	*55%*	143 090	40	*61%*	256 498	66	*54%*
B.Hatthana	244	54 120	13	*47%*	84 100	23	*59%*	139 685	37	*57%*
B.Kacham-Noy	312	64 040	16	*51%*	100 923	29	*63%*	167 813	48	*61%*
B.Gnavay	206	49 543	11	*45%*	74 897	20	*56%*	110 012	31	*62%*
B.Maignalouam	385	76 505	20	*53%*	132 431	37	*59%*	196 389	58	*64%*
B.Soy	215	50 934	12	*46%*	76 567	20	*57%*	113 591	33	*62%*
B.Pakphanang-Mai	342	68 323	18	*53%*	121 730	33	*57%*	222 703	54	*50%*
B.Soppeng	0	0	0	*0%*	0	0	*0%*	0	0	*0%*
		5 493 387		***51%***	**9 008 514**		***59%***	**14 778 872**		***58%***
Gnommalat										
B.Khoua	296	62 392	16	*51%*	96 472	28	*62%*	160 905	45	*60%*
B.Phonbok	296	62 392	16	*51%*	96 472	28	*62%*	160 905	45	*60%*
B.Nat	296	62 392	16	*51%*	96 472	28	*62%*	160 905	45	*60%*
B.Namphit	296	62 392	16	*51%*	96 472	28	*62%*	160 905	45	*60%*
B.Phonsang	296	62 392	16	*51%*	96 472	28	*62%*	160 905	45	*60%*
B.Thamkhouay	296	62 392	16	*51%*	96 472	28	*62%*	160 905	45	*60%*
B.Khoksavang	296	62 392	16	*51%*	96 472	28	*62%*	160 905	45	*60%*
B.Toy	296	62 392	16	*51%*	96 472	28	*62%*	160 905	45	*60%*
B.Phonsa-At	296	62 392	16	*51%*	96 472	28	*62%*	160 905	45	*60%*
B.Pomkoun	296	62 392	16	*51%*	96 472	28	*62%*	160 905	45	*60%*
B.Phonhoy	296	62 392	16	*51%*	96 472	28	*62%*	160 905	45	*60%*
B.Naphong	296	62 392	16	*51%*	96 472	28	*62%*	160 905	45	*60%*
B.Louang	296	62 392	16	*51%*	96 472	28	*62%*	160 905	45	*60%*
B.Viang	296	62 392	16	*51%*	96 472	28	*62%*	160 905	45	*60%*
B.Lao	513	94 991	26	*57%*	164 494	48	*63%*	290 343	79	*58%*
B.Sangkeo	205	48 446	11	*44%*	74 854	20	*56%*	108 473	31	*61%*
B.Sangkout	357	73 356	19	*52%*	124 898	34	*58%*	185 604	54	*63%*
B.Nongseng	209	49 653	11	*45%*	75 026	20	*56%*	110 212	31	*61%*
B.Nadang	110	24 614	6	*47%*	37 906	10	*59%*	56 382	17	*64%*
B.Thathot-Nua	371	74 930	19	*52%*	129 306	35	*59%*	191 022	56	*63%*
B.Hatnangkom	360	73 466	19	*52%*	126 310	34	*58%*	187 344	55	*63%*
B.Nong-An	339	68 212	18	*53%*	121 601	33	*57%*	221 064	53	*50%*
B.Nabon	263	56 938	14	*48%*	88 724	25	*60%*	148 331	40	*58%*
B.Sivilai	311	64 003	16	*51%*	100 880	29	*63%*	166 323	47	*61%*
B.Phosi-Thong	419	81 995	22	*54%*	141 463	40	*60%*	252 970	65	*54%*
B.Latkhouang	257	56 718	14	*49%*	87 182	24	*60%*	144 953	39	*58%*
B.Phonkham	170	33 180	9	*54%*	53 102	16	*65%*	94 259	25	*58%*
B.Sivilai	227	52 435	12	*46%*	79 606	21	*58%*	118 808	35	*63%*
B.Phonsavang	264	56 975	14	*48%*	88 767	25	*60%*	148 381	40	*58%*
B.Nahuang	240	53 973	13	*47%*	82 688	22	*58%*	137 946	37	*56%*
B.Nongkaching	237	53 863	13	*47%*	82 559	22	*59%*	137 746	37	*56%*
B.Nafaitai	181	34 644	9	*55%*	56 098	17	*66%*	99 427	27	*59%*
B.Pha-Noy	207	49 580	11	*45%*	74 940	20	*56%*	110 062	31	*61%*
B.Thongmang	316	65 247	17	*52%*	102 378	30	*63%*	169 602	48	*61%*
B.Kobong	240	53 973	13	*47%*	82 688	22	*58%*	137 946	37	*56%*
B.Sibounhuang	224	51 265	12	*45%*	79 434	21	*58%*	117 069	34	*63%*
B.Mixai	312	64 040	16	*51%*	100 923	29	*63%*	167 813	48	*61%*
B.Phonsa-At	167	33 070	9	*54%*	51 733	15	*65%*	94 059	25	*58%*
B.Donsavang	421	82 068	22	*54%*	141 549	40	*60%*	253 119	65	*54%*
B.Somsanouk	9	10 301	3	*10%*	13 334	3	*19%*	15 680	4	*18%*
B.Somsa-At	240	53 973	13	*47%*	82 688	22	*58%*	137 946	37	*56%*
B.Sopkathang	144	29 044	7	*51%*	46 937	14	*63%*	85 163	22	*56%*
B.Gnommalat-Kang	315	65 210	17	*52%*	102 335	30	*63%*	169 552	48	*61%*
B.Nakhilek	304	62 686	16	*51%*	99 339	29	*62%*	164 384	46	*60%*
B.Gnommalat-Nua	130	27 469	7	*50%*	42 572	12	*61%*	65 128	20	*66%*
B.Gnommalat-Tai	207	49 580	11	*45%*	74 940	20	*56%*	110 062	31	*61%*

LOAD FORECAST

Scenario 24h

Settlement name	population	First year Consumption (kWh)	First year Peak (kW)	First year Domestic share	Mid-term Consumption (kWh)	Mid-term Peak (kW)	Mid-term Domestic share	Horizon Consumption (kWh)	Horizon Peak (kW)	Horizon Domestic share
B.Nongping-Tai	130	27 469	7	*50 %*	42 572	12	*61%*	65 128	20	*66%*
B.Phonsa-At	188	35 962	10	*56 %*	70 316	18	*55%*	118 165	29	*52%*
B.Nongping-Nua	302	62 612	16	*51 %*	97 970	28	*62%*	162 745	46	*60%*
B.Natheut	302	62 612	16	*51 %*	97 970	28	*62%*	162 745	46	*60%*
B.Na	417	81 921	22	*54 %*	140 137	39	*60%*	252 870	65	*54%*
B.Keng-Ek	289	61 074	15	*50 %*	94 888	27	*61%*	158 917	44	*60%*
B.Bo	255	56 644	14	*49 %*	87 096	24	*60%*	144 803	39	*58%*
B.Napho	248	55 327	13	*48 %*	85 555	24	*59%*	141 474	38	*57%*
B.Phonbok	366	74 747	19	*52 %*	127 808	35	*58%*	189 183	55	*63%*
B.Thongkong	272	58 329	14	*49 %*	91 634	26	*61%*	151 910	42	*59%*
B.Kenglek	367	74 783	19	*52 %*	127 851	35	*58%*	189 233	55	*63%*
B.Khamhe	216	50 971	12	*46 %*	76 610	20	*57%*	113 640	33	*62%*
B.Napho	271	58 292	14	*49 %*	90 351	25	*60%*	151 810	42	*59%*
B.Namouan	359	73 429	19	*52 %*	126 267	34	*58%*	185 804	54	*63%*
B.Fangdeng	414	80 751	21	*54 %*	140 008	39	*60%*	251 180	64	*54%*
B.Pakphoung	122	26 115	6	*49 %*	40 945	11	*61%*	61 600	18	*65%*
B.Nignom	248	55 327	13	*48 %*	85 555	24	*59%*	141 474	38	*57%*
B.Thamphong	415	81 848	22	*54 %*	140 051	39	*60%*	251 280	64	*54%*
B.Boungbao	137	28 787	7	*52 %*	44 113	13	*62%*	81 735	21	*55%*
B.B.Donpuang	248	55 327	13	*48 %*	85 555	24	*59%*	141 474	38	*57%*
B.Thangbeng	264	56 975	14	*48 %*	88 767	25	*60%*	148 381	40	*58%*
B.Houay-Yen	517	96 198	27	*57 %*	165 906	49	*64%*	292 082	79	*58%*
B.Thapha	414	80 751	21	*54 %*	140 008	39	*60%*	251 180	64	*54%*
B.Naveng	119	26 005	6	*49 %*	40 816	11	*61%*	59 960	18	*65%*
B.Phontoum	79	20 294	4	*42 %*	30 243	7	*53%*	43 957	12	*59%*
B.Nahai	322	65 467	17	*52 %*	117 063	31	*56%*	213 957	51	*49%*
B.Tat	248	55 327	13	*48 %*	85 555	24	*59%*	141 474	38	*57%*
B.Phathoung	120	26 042	6	*49 %*	40 859	11	*61%*	60 060	18	*65%*
B.Sang	517	96 198	27	*57 %*	165 906	49	*64%*	292 082	79	*58%*
B.Kouanphan	68	18 830	4	*39 %*	27 247	6	*50%*	38 840	10	*56%*
B.Phavong	215	50 934	12	*46 %*	76 567	20	*57%*	113 591	33	*62%*
B.Nakatang	517	96 198	27	*57 %*	165 906	49	*64%*	292 082	79	*58%*
B.Nongchan	517	96 198	27	*57 %*	165 906	49	*64%*	292 082	79	*58%*
B.Phonkheng	322	65 467	17	*52 %*	117 063	31	*56%*	213 957	51	*49%*
B.Mouangkhai	517	96 198	27	*57 %*	165 906	49	*64%*	292 082	79	*58%*
B.Phit	238	53 899	13	*47 %*	82 602	22	*59%*	137 796	37	*56%*
B.Teuan	271	58 292	14	*49 %*	90 351	25	*60%*	151 810	42	*59%*
B.Kouanpho	85	20 515	4	*41 %*	31 784	8	*55%*	45 896	13	*60%*
B.Phonset	421	82 068	22	*54 %*	141 549	40	*60%*	253 119	65	*54%*
B.Phonsavang	446	86 168	23	*55 %*	147 713	42	*61%*	263 705	69	*55%*
B.Hinkhao	164	31 899	8	*53 %*	51 604	15	*65%*	92 420	25	*58%*
B.Hai	238	53 899	13	*47 %*	82 602	22	*59%*	137 796	37	*56%*
B.Hatpaphon	70	18 904	4	*39 %*	27 333	6	*50%*	40 379	11	*57%*
B.Xon	238	53 899	13	*47 %*	82 602	22	*59%*	137 796	37	*56%*
B.Naden	533	97 846	27	*57 %*	169 117	50	*64%*	298 989	82	*58%*
B.Phonkeo	178	34 534	9	*55 %*	54 729	16	*66%*	97 787	27	*59%*
B.Bung	352	72 112	18	*51 %*	124 683	34	*58%*	183 815	53	*63%*
B.Hangkan	267	58 145	14	*49 %*	90 136	25	*61%*	148 581	41	*58%*
B.Khilek	483	90 708	25	*56 %*	156 874	46	*62%*	279 408	75	*57%*
B.Poungbon	237	53 863	13	*47 %*	82 559	22	*59%*	137 746	37	*56%*
B.Phonmouang	384	76 468	20	*53 %*	132 388	37	*59%*	196 340	58	*64%*
B.Nasi-Thong	84	20 478	4	*41 %*	31 741	8	*55%*	45 846	13	*60%*
B.Kengkeo	109	24 577	6	*47 %*	37 863	10	*59%*	56 332	16	*64%*
B.Takdet	190	36 035	10	*56 %*	70 402	18	*55%*	118 315	29	*52%*
B.Thachon	348	69 603	18	*53 %*	123 271	33	*57%*	224 642	54	*51%*
B.Xiangdao	346	69 530	18	*53 %*	123 142	33	*57%*	223 003	54	*50%*
B.Nongseng	160	31 752	8	*53 %*	50 192	15	*64%*	90 731	24	*57%*
B.Nathin	139	28 860	7	*51 %*	45 482	13	*63%*	83 374	22	*55%*
B.Talak	380	76 321	20	*53 %*	130 976	36	*59%*	194 600	57	*64%*
B.Chakouan	227	52 435	12	*46 %*	79 606	21	*58%*	118 808	35	*63%*

LOAD FORECAST

Scenario 24h

Settlement name	population	First year Consumption (kWh)	First year Peak (kW)	First year Domestic share	Mid-term Consumption (kWh)	Mid-term Peak (kW)	Mid-term Domestic share	Horizon Consumption (kWh)	Horizon Peak (kW)	Horizon Domestic share
		6 085 605		***51%***	**9 890 133**		***60%***	**16 471 814**		***58%***
Hinboun										
B.Nasakong	705	152 312	37	*49 %*	248 545	67	*57%*	368 168	107	*63%*
B.Phakonko	539	99 126	28	*58 %*	170 658	51	*64%*	300 928	82	*58%*
B.Khen	283	59 794	15	*50 %*	93 390	26	*61%*	155 588	43	*59%*
B.Thonglom	650	144 990	34	*48 %*	234 804	62	*56%*	345 308	99	*61%*
B.Naheup	162	31 826	8	*53 %*	51 518	15	*65%*	92 270	25	*58%*
B.Nakha	376	76 174	20	*53 %*	130 761	36	*59%*	192 811	57	*63%*
B.Khounkham	500	93 453	26	*57 %*	161 368	47	*63%*	284 975	77	*57%*
B.Khounngeun	263	56 938	14	*48 %*	88 724	25	*60%*	148 331	40	*58%*
B.Namsanam	319	65 357	17	*52 %*	102 507	30	*63%*	169 801	48	*61%*
B.Nakham	133	27 580	7	*50 %*	43 941	13	*62%*	79 996	20	*54%*
B.Thamtem	345	68 433	18	*53 %*	121 859	33	*57%*	222 903	54	*50%*
B.Don	460	87 742	24	*56 %*	150 839	43	*62%*	269 072	71	*56%*
B.Kang	313	64 076	16	*51 %*	100 966	29	*63%*	167 912	48	*61%*
B.Phonthong	389	77 712	20	*53 %*	133 843	37	*59%*	198 129	59	*64%*
B.Naphouak	884	177 972	46	*52 %*	294 134	84	*61%*	439 236	133	*66%*
B.Phonpheng	393	77 859	20	*53 %*	134 058	37	*59%*	199 918	59	*64%*
B.Kongphat	706	153 409	37	*49 %*	249 828	68	*58%*	368 218	107	*63%*
B.Vangdao	261	56 865	14	*48 %*	88 638	25	*60%*	146 742	40	*58%*
B.Nammahang	391	77 786	20	*53 %*	133 972	37	*59%*	199 768	59	*64%*
B.Nong-Hang	274	58 403	14	*49 %*	91 720	26	*61%*	152 009	42	*59%*
B.Namuang	553	100 701	28	*58 %*	210 405	53	*53%*	306 295	84	*59%*
B.Mouang-	566	103 299	29	*58 %*	214 727	55	*54%*	311 563	86	*59%*
B.Naxangkham	472	89 243	24	*56 %*	153 878	44	*62%*	274 290	73	*56%*
B.Nakang-Tai	413	80 714	21	*54 %*	139 965	39	*60%*	251 130	64	*54%*
B.Houaykeo	583	104 984	30	*59 %*	218 024	56	*54%*	318 620	89	*60%*
B.Nakham	311	64 003	16	*51 %*	100 880	29	*63%*	166 323	47	*61%*
B.Nakang-Nua	527	97 625	27	*58 %*	167 619	49	*64%*	297 150	81	*58%*
B.Mouang-Nua	437	84 777	23	*55 %*	146 043	42	*61%*	260 126	67	*55%*
B.Namnon	350	69 677	18	*53 %*	123 357	33	*57%*	224 742	54	*51%*
B.Houay-On	548	100 517	28	*58 %*	173 568	52	*64%*	304 506	84	*59%*
B.Phongneng	590	106 301	30	*59 %*	220 848	57	*54%*	322 099	90	*60%*
B.Keng	355	73 282	19	*52 %*	124 812	34	*58%*	184 015	54	*63%*
B.Natang	267	58 145	14	*49 %*	90 136	25	*61%*	148 581	41	*58%*
B.Vangpia	258	56 755	14	*49 %*	87 225	24	*60%*	145 003	39	*58%*
B.Hatsakhang	659	146 381	35	*48 %*	237 715	63	*56%*	350 326	101	*62%*
B.Phonthong	222	51 191	12	*46 %*	78 108	21	*57%*	115 480	33	*62%*
B.Vangtakhong	443	84 997	23	*55 %*	146 301	42	*61%*	261 965	68	*55%*
B.Nakhak	711	153 593	37	*49 %*	250 086	68	*58%*	370 107	108	*63%*
B.Katep	398	79 103	21	*54 %*	135 514	38	*59%*	244 223	62	*53%*
B.Fangdeng	275	59 500	15	*50 %*	91 763	26	*61%*	152 109	42	*59%*
B.Phahang-Nua	412	80 678	21	*54 %*	138 639	39	*60%*	249 541	64	*54%*
B.Viangthong	453	86 425	23	*55 %*	149 255	43	*61%*	267 083	70	*56%*
B.Phahang-Tai	322	65 467	17	*52 %*	117 063	31	*56%*	213 957	51	*49%*
B.Phonxai	211	49 727	11	*45 %*	75 112	20	*56%*	111 801	32	*62%*
B.Thaphosi	347	69 566	18	*53 %*	123 228	33	*57%*	224 542	54	*51%*
B.Houaypuak	177	34 497	9	*55 %*	54 686	16	*66%*	97 688	27	*59%*
B.Thana-Nua	169	33 143	9	*54 %*	53 059	16	*65%*	94 209	25	*58%*
B.Phondi	721	155 020	38	*49 %*	253 040	69	*58%*	375 175	110	*63%*
B.Nathan	299	62 502	16	*51 %*	97 841	28	*62%*	162 545	46	*60%*
B.Thana-Tai	297	62 428	16	*51 %*	97 755	28	*62%*	160 955	45	*60%*
B.Phachoua	429	83 423	22	*55 %*	143 176	40	*61%*	256 648	66	*54%*
B.Nateo	432	83 533	22	*55 %*	144 545	41	*61%*	258 287	67	*55%*
B.Laokha	606	139 133	32	*46 %*	224 060	58	*55%*	327 566	92	*60%*
B.Meng	389	77 712	20	*53 %*	133 843	37	*59%*	198 129	59	*64%*
B.Phonsa-At	202	48 336	11	*44 %*	73 441	19	*56%*	108 223	31	*61%*
B.Vangmon	369	74 857	19	*52 %*	127 980	35	*58%*	190 922	56	*63%*
B.Hinlat	980	192 102	51	*54 %*	317 250	92	*63%*	478 198	148	*67%*

LOAD FORECAST

Scenario 24h

Settlement name	population	First year			Mid-term			Horizon		
		Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
B.Hatxaikham	969	190 637	50	*54 %*	315 494	92	*62%*	474 470	146	*67%*
B.Xang	188	35 962	10	*56 %*	70 316	18	*55%*	118 165	29	*52%*
B.Mai	631	142 172	33	*47 %*	230 181	60	*55%*	338 101	96	*61%*
B.Phong-Nua	711	153 593	37	*49 %*	250 086	68	*58%*	370 107	108	*63%*
B.Songkhon	352	72 112	18	*51 %*	124 683	34	*58%*	183 815	53	*63%*
B.Houaykasa	841	172 152	44	*52 %*	283 432	80	*60%*	423 033	127	*65%*
B.Phong-Kang	565	102 202	29	*58 %*	213 444	54	*53%*	311 513	86	*59%*
B.Houaybon	168	33 106	9	*54 %*	51 776	15	*65%*	94 159	25	*58%*
B.Phong-Tai	246	55 253	13	*48 %*	84 186	23	*59%*	141 224	38	*57%*
B.Phonkho	715	154 800	38	*49 %*	251 499	68	*58%*	371 796	108	*63%*
B.Houayhua	445	85 071	23	*55 %*	147 627	42	*61%*	263 555	69	*55%*
B.Nanua	318	65 320	17	*52 %*	102 464	30	*63%*	169 751	48	*61%*
B.Tanhi	299	62 502	16	*51 %*	97 841	28	*62%*	162 545	46	*60%*
B.Poung-Nua	503	93 563	26	*57 %*	161 540	47	*63%*	286 714	77	*57%*
B.Nonglouang	402	79 250	21	*54 %*	136 969	38	*60%*	245 963	62	*53%*
B.Poung-Tai	436	84 740	23	*55 %*	144 760	41	*61%*	260 076	67	*55%*
B.Thasomhong	283	59 794	15	*50 %*	93 390	26	*61%*	155 588	43	*59%*
B.Donlap	241	54 010	13	*47 %*	82 731	23	*58%*	139 485	37	*57%*
B.Houaytiou	188	35 962	10	*56 %*	70 316	18	*55%*	118 165	29	*52%*
B.Houaykhiao	229	52 508	12	*46 %*	80 932	22	*58%*	118 958	35	*63%*
B.Thasavang	226	52 398	12	*47 %*	79 563	21	*58%*	117 269	34	*63%*
B.Houaykava-Nua	558	101 945	29	*58 %*	211 903	54	*53%*	309 574	86	*59%*
B.Nakadeng	566	103 299	29	*58 %*	214 727	55	*54%*	311 563	86	*59%*
B.Dong-Kang	470	89 170	24	*56 %*	153 792	44	*62%*	274 140	73	*56%*
B.Houaykava-Tai	164	31 899	8	*53 %*	51 604	15	*65%*	92 420	25	*58%*
B.Hat	211	49 727	11	*45 %*	75 112	20	*56%*	111 801	32	*62%*
B.Nakhoun	347	69 566	18	*53 %*	123 228	33	*57%*	224 542	54	*51%*
B.Koup	254	55 547	13	*48 %*	87 053	24	*60%*	144 753	39	*58%*
B.Vangpheung	202	48 336	11	*44 %*	73 441	19	*56%*	108 223	31	*61%*
B.Thongkha	400	79 176	21	*54 %*	135 600	38	*59%*	245 763	62	*53%*
B.Gnang	487	91 915	25	*57 %*	158 286	46	*63%*	279 707	75	*57%*
B.Nasa	169	33 143	9	*54 %*	53 059	16	*65%*	94 209	25	*58%*
B.Tiou	493	92 135	25	*56 %*	159 827	47	*63%*	283 086	76	*57%*
B.Boneng	206	49 543	11	*45 %*	74 897	20	*56%*	110 012	31	*62%*
B.Or	269	58 219	14	*49 %*	90 222	25	*60%*	150 170	41	*58%*
B.Konglo-Tai	287	61 001	15	*50 %*	94 802	27	*61%*	157 327	44	*59%*
B.Konglo-Kang	453	86 425	23	*55 %*	149 255	43	*61%*	267 083	70	*56%*
B.Konglo-Nua	436	84 740	23	*55 %*	144 760	41	*61%*	260 076	67	*55%*
B.Nongxun	191	36 072	10	*56 %*	70 445	18	*55%*	118 365	29	*52%*
B.Thagno	277	59 573	15	*50 %*	91 849	26	*61%*	153 699	42	*59%*
B.Phalem	202	48 336	11	*44 %*	73 441	19	*56%*	108 223	31	*61%*
B.Nakham	542	99 237	28	*58 %*	172 027	51	*64%*	302 567	83	*59%*
B.Xao	346	69 530	18	*53 %*	123 142	33	*57%*	223 003	54	*50%*
B.Noy	467	89 060	24	*56 %*	152 380	44	*62%*	272 401	72	*56%*
B.Nadon	480	90 597	25	*56 %*	156 745	46	*63%*	277 768	74	*56%*
B.Mouangkhai-Nua	533	97 846	27	*57 %*	169 117	50	*64%*	298 989	82	*58%*
B.Mouangkhai-	365	73 650	19	*52 %*	127 765	35	*58%*	189 133	55	*63%*
B.Mouangkhai-Tai	702	152 202	37	*49 %*	248 416	67	*57%*	366 528	107	*62%*
B.Phon	345	68 433	18	*53 %*	121 859	33	*57%*	222 903	54	*50%*
B.Na-An	391	77 786	20	*53 %*	133 972	37	*59%*	199 768	59	*64%*
B.Kouankacha	422	82 105	22	*54 %*	141 592	40	*60%*	254 659	65	*54%*
B.Nahi	391	77 786	20	*53 %*	133 972	37	*59%*	199 768	59	*64%*
B.Houayxai	240	53 973	13	*47 %*	82 688	22	*58%*	137 946	37	*56%*
B.Houana	753	159 377	39	*50 %*	260 702	72	*59%*	387 599	114	*64%*
B.Pakthuk	601	137 889	32	*46 %*	222 605	58	*55%*	325 777	92	*60%*
B.Namuang	234	52 692	12	*46 %*	81 147	22	*58%*	136 007	36	*56%*
B.Kokkate	207	49 580	11	*45 %*	74 940	20	*56%*	110 062	31	*61%*
B.Nongdong	413	80 714	21	*54 %*	139 965	39	*60%*	251 130	64	*54%*
B.Seng-Aloun	664	146 565	35	*48 %*	239 170	64	*57%*	350 626	101	*62%*
B.Pakveng	269	58 219	14	*49 %*	90 222	25	*60%*	150 170	41	*58%*

LOAD FORECAST

Scenario 24h

Settlement name	population	First year Consumption (kWh)	First year Peak (kW)	First year Domestic share	Mid-term Consumption (kWh)	Mid-term Peak (kW)	Mid-term Domestic share	Horizon Consumption (kWh)	Horizon Peak (kW)	Horizon Domestic share
B.Bong	476	90 450	25	*56%*	155 290	45	*62%*	275 979	73	*56%*
B.Nateuy	174	33 327	9	*54%*	53 317	16	*65%*	96 048	26	*58%*
B.Nano	355	73 282	19	*52%*	124 812	34	*58%*	184 015	54	*63%*
B.Napho	271	58 292	14	*49%*	90 351	25	*60%*	151 810	42	*59%*
B.Nahang	427	83 349	22	*55%*	143 090	40	*61%*	256 498	66	*54%*
B.Phomen	239	53 936	13	*47%*	82 645	22	*59%*	137 896	37	*56%*
B.Bouamlou	196	37 316	10	*57%*	71 943	19	*55%*	121 693	31	*53%*
B.Nahan	941	186 428	49	*53%*	308 004	89	*62%*	462 295	142	*66%*
B.Nongboua	342	68 323	18	*53%*	121 730	33	*57%*	222 703	54	*50%*
B.Phonthong	370	74 894	19	*52%*	129 263	35	*59%*	190 972	56	*63%*
B.Nongkhoun	210	49 690	11	*45%*	75 069	20	*56%*	111 702	32	*62%*
B.Hinkhan	330	66 821	17	*52%*	118 690	32	*56%*	217 486	52	*50%*
B.Nongchang	160	31 752	8	*53%*	50 192	15	*64%*	90 731	24	*57%*
B.Phonsoung	292	61 184	15	*50%*	96 300	28	*62%*	159 166	44	*60%*
B.Songhong	178	34 534	9	*55%*	54 729	16	*66%*	97 787	27	*59%*
B.Samakkhixai	178	34 534	9	*55%*	54 729	16	*66%*	97 787	27	*59%*
B.Khamkeo	178	34 534	9	*55%*	54 729	16	*66%*	97 787	27	*59%*
B.Sixomxun	250	55 400	13	*48%*	85 641	24	*59%*	143 014	39	*57%*
B.Phonsavang	370	74 894	19	*52%*	129 263	35	*59%*	190 972	56	*63%*
B.Phavang	178	34 534	9	*55%*	54 729	16	*66%*	97 787	27	*59%*
B.Nahuang	370	74 894	19	*52%*	129 263	35	*59%*	190 972	56	*63%*
B.Kengphakha	250	55 400	13	*48%*	85 641	24	*59%*	143 014	39	*57%*
B.Khonkeo	486	91 878	25	*57%*	158 243	46	*63%*	279 657	75	*57%*
B.Nonghoy	384	76 468	20	*53%*	132 388	37	*59%*	196 340	58	*64%*
B.Thakhen	250	55 400	13	*48%*	85 641	24	*59%*	143 014	39	*57%*
B.Napho	556	101 871	29	*58%*	211 817	54	*53%*	307 985	85	*59%*
B.Nakoum	284	59 830	15	*50%*	93 433	26	*61%*	155 688	43	*59%*
B.Thami	866	176 251	45	*52%*	289 596	82	*61%*	432 179	131	*65%*
B.Vanghouapa	384	76 468	20	*53%*	132 388	37	*59%*	196 340	58	*64%*
B.Pakpakan	361	73 503	19	*52%*	126 353	34	*58%*	187 394	55	*63%*
B.Phonkho	342	68 323	18	*53%*	121 730	33	*57%*	222 703	54	*50%*
B.Phonpheng	230	52 545	12	*46%*	80 975	22	*58%*	119 008	35	*63%*
B.Mainampakan	361	73 503	19	*52%*	126 353	34	*58%*	187 394	55	*63%*
B.Phadeng	271	58 292	14	*49%*	90 351	25	*60%*	151 810	42	*59%*
B.Nakhu	475	90 414	25	*56%*	155 247	45	*62%*	275 929	73	*56%*
B.Nabon	254	55 547	13	*48%*	87 053	24	*60%*	144 753	39	*58%*
B.Nongboua-Noy	264	56 975	14	*48%*	88 767	25	*60%*	148 381	40	*58%*
B.Phonkham	352	72 112	18	*51%*	124 683	34	*58%*	183 815	53	*63%*
B.Houaykhaomin-	541	99 200	28	*58%*	170 744	51	*64%*	302 517	83	*59%*
B.Phonmouang	287	61 001	15	*50%*	94 802	27	*61%*	157 327	44	*59%*
B.Dondou	1 110	210 661	58	*56%*	350 639	105	*64%*	531 175	167	*68%*
B.Phosi	724	155 131	38	*49%*	253 169	69	*58%*	375 374	110	*63%*
B.Houaykhaomin-	422	82 105	22	*54%*	141 592	40	*60%*	254 659	65	*54%*
B.Nongphu	625	140 891	33	*47%*	228 683	60	*55%*	336 212	95	*61%*
B.Ton-Noy	541	99 200	28	*58%*	170 744	51	*64%*	302 517	83	*59%*
B.Hatnangkom	287	61 001	15	*50%*	94 802	27	*61%*	157 327	44	*59%*
B.Vangkhong	600	107 729	31	*59%*	222 562	58	*55%*	325 727	92	*60%*
B.Poung-Tai	318	65 320	17	*52%*	102 464	30	*63%*	169 751	48	*61%*
B.Namdik	243	54 083	13	*47%*	84 057	23	*59%*	139 585	37	*57%*
B.Phonsavan	610	139 280	32	*46%*	225 472	59	*55%*	329 305	93	*60%*
B.Hinboun	206	49 543	11	*45%*	74 897	20	*56%*	110 012	31	*62%*
B.Hinboun-Tai	206	49 543	11	*45%*	74 897	20	*56%*	110 012	31	*62%*
B.Phonkham	163	31 862	8	*53%*	51 561	15	*65%*	92 370	25	*58%*
B.Songpatiou	191	36 072	10	*56%*	70 445	18	*55%*	118 365	29	*52%*
B.Nakho	355	73 282	19	*52%*	124 812	34	*58%*	184 015	54	*63%*
B.Phonkham	484	90 744	25	*56%*	156 917	46	*62%*	279 508	75	*57%*
		13 969 055		***52%***	**23 561 676**		***59%***	**37 958 459**		***59%***
Mahaxai										
B.Nachan	470	89 170	24	*56%*	153 792	44	*62%*	274 140	73	*56%*

LOAD FORECAST

Scenario 24h

Settlement name	population	First year			Mid-term			Horizon		
		Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
B.Kava	272	58 329	14	*49%*	91 634	26	*61%*	151 910	42	*59%*
B.Phonnadi	79	20 294	4	*42%*	30 243	7	*53%*	43 957	12	*59%*
B.Kouantoun	443	84 997	23	*55%*	146 301	42	*61%*	261 965	68	*55%*
B.Nakhe	445	85 071	23	*55%*	147 627	42	*61%*	263 555	69	*55%*
B.Khamphaleng	288	61 037	15	*50%*	94 845	27	*61%*	157 377	44	*59%*
B.Kouanlouang	271	58 292	14	*49%*	90 351	25	*60%*	151 810	42	*59%*
B.Napouak	245	54 157	13	*47%*	84 143	23	*59%*	141 175	38	*57%*
B.Nataphoy	404	79 324	21	*53%*	137 055	38	*60%*	247 552	63	*54%*
B.Phonsamum	252	55 474	13	*48%*	85 727	24	*59%*	143 163	39	*57%*
B.Mai	425	82 216	22	*54%*	143 004	40	*61%*	254 909	66	*54%*
B.Panam	334	66 968	17	*52%*	120 103	32	*57%*	219 225	52	*50%*
B.Nahi	117	25 931	6	*49%*	39 490	11	*60%*	59 810	18	*65%*
B.Nasavang	204	48 409	11	*44%*	73 570	19	*56%*	108 423	31	*61%*
B.Nathon	158	31 679	8	*54%*	50 063	15	*64%*	90 481	24	*57%*
B.Chaloum	174	33 327	9	*54%*	53 317	16	*65%*	96 048	26	*58%*
B.Nondeng	628	142 061	33	*47%*	230 052	60	*56%*	336 412	95	*61%*
B.Namakba	218	51 044	12	*46%*	77 936	21	*57%*	115 230	33	*62%*
B.Thakokkhen	219	51 081	12	*46%*	77 979	21	*57%*	115 280	33	*62%*
B.Nammala	272	58 329	14	*49%*	91 634	26	*61%*	151 910	42	*59%*
B.Don-Dong	288	61 037	15	*50%*	94 845	27	*61%*	157 377	44	*59%*
B.Nakathang-	276	59 536	15	*50%*	91 806	26	*61%*	153 599	42	*59%*
B.Nakathang-Noy	266	58 109	14	*49%*	90 093	25	*61%*	148 531	41	*58%*
B.Nakathang-Dong	261	56 865	14	*48%*	88 638	25	*60%*	146 742	40	*58%*
B.Pong	936	186 244	49	*54%*	306 505	88	*62%*	460 456	141	*66%*
B.Khamfuang	682	149 347	36	*48%*	243 750	65	*57%*	359 222	104	*62%*
B.Khamphe-Gnai	191	36 072	10	*56%*	70 445	18	*55%*	118 365	29	*52%*
B.Khamphe-Na	439	84 850	23	*55%*	146 129	42	*61%*	261 716	68	*55%*
B.Khamphe-Dong	288	61 037	15	*50%*	94 845	27	*61%*	157 377	44	*59%*
B.Na-Ngiou	142	28 970	7	*51%*	45 611	13	*63%*	83 574	22	*55%*
B.Don-Thong	126	27 322	7	*50%*	42 357	12	*61%*	61 899	18	*65%*
B.Nasathoung	405	79 360	21	*53%*	137 098	38	*60%*	247 652	63	*53%*
B.Teng-Dong	180	34 607	9	*55%*	54 815	16	*66%*	99 377	27	*59%*
B.Teng-Thong	205	48 446	11	*44%*	74 854	20	*56%*	108 473	31	*61%*
B.Non-Gnang	118	25 968	6	*49%*	39 533	11	*60%*	59 910	18	*65%*
B.Phonsavan	326	66 674	17	*52%*	117 278	31	*56%*	215 746	51	*49%*
B.Phonsavan	184	34 754	9	*55%*	68 904	17	*54%*	116 476	29	*52%*
B.Phakeo	158	31 679	8	*54%*	50 063	15	*64%*	90 481	24	*57%*
B.Kavak	231	52 582	12	*46%*	81 018	22	*58%*	119 058	35	*63%*
B.Nasao	127	27 359	7	*50%*	42 443	12	*61%*	63 489	19	*66%*
B.Lao	943	186 501	49	*53%*	308 090	89	*62%*	463 885	142	*66%*
B.Ilan	116	25 895	6	*49%*	39 447	11	*60%*	58 321	17	*64%*
B.Nongkok	402	79 250	21	*54%*	136 969	38	*60%*	245 963	62	*53%*
B.Nakhai	757	160 584	40	*50%*	262 157	72	*59%*	389 388	115	*64%*
B.Phachoumkhong	301	62 575	16	*51%*	97 927	28	*62%*	162 695	46	*60%*
B.Naphong	471	89 207	24	*56%*	153 835	44	*62%*	274 190	73	*56%*
B.Kouankhouay	378	76 248	20	*53%*	130 847	36	*59%*	194 401	57	*64%*
B.Vatthat	630	142 135	33	*47%*	230 138	60	*56%*	338 001	96	*61%*
B.Natou	308	63 893	16	*51%*	99 511	29	*62%*	166 123	47	*61%*
B.Ten	162	31 826	8	*53%*	51 518	15	*65%*	92 270	25	*58%*
B.Nathan-Thong	310	63 966	16	*51%*	100 837	29	*63%*	166 223	47	*61%*
B.Phonsavan	142	28 970	7	*51%*	45 611	13	*63%*	83 574	22	*55%*
B.Nathan-Dong	240	53 973	13	*47%*	82 688	22	*58%*	137 946	37	*56%*
B.Phonsa-At	238	53 899	13	*47%*	82 602	22	*59%*	137 796	37	*56%*
B.Nahi	201	48 299	11	*44%*	73 398	19	*56%*	108 173	31	*61%*
B.Kangsikhai	132	27 543	7	*50%*	43 898	13	*62%*	65 278	20	*66%*
B.Kengsavang	280	59 683	15	*50%*	93 218	26	*61%*	153 898	42	*59%*
B.Phonkham	676	149 126	36	*48%*	242 209	65	*57%*	355 843	103	*62%*
B.Nakok-Nai	130	27 469	7	*50%*	42 572	12	*61%*	65 128	20	*66%*
B.Pakxong	1 035	200 484	54	*55%*	330 991	97	*63%*	501 058	156	*68%*
B.Man	674	147 992	35	*48%*	240 883	64	*57%*	355 743	103	*62%*

LOAD FORECAST

Scenario 24h

Settlement name	population	First year Consumption (kWh)	First year Peak (kW)	First year Domestic share	Mid-term Consumption (kWh)	Mid-term Peak (kW)	Mid-term Domestic share	Horizon Consumption (kWh)	Horizon Peak (kW)	Horizon Domestic share
B.Xong	445	85 071	23	*55%*	147 627	42	*61%*	263 555	69	*55%*
B.Nongpaman	283	59 794	15	*50%*	93 390	26	*61%*	155 588	43	*59%*
B.Phakiou	419	81 995	22	*54%*	141 463	40	*60%*	252 970	65	*54%*
B.Phonxai	279	59 647	15	*50%*	93 175	26	*61%*	153 799	42	*59%*
B.Phakhen	179	34 571	9	*55%*	54 772	16	*66%*	97 837	27	*59%*
B.Sangphok	562	102 092	29	*58%*	213 315	54	*53%*	311 314	86	*59%*
B.Veun	161	31 789	8	*53%*	50 235	15	*64%*	92 220	25	*58%*
B.Lak9	160	31 752	8	*53%*	50 192	15	*64%*	90 731	24	*57%*
B.Nakoklak7	227	52 435	12	*46%*	79 606	21	*58%*	118 808	35	*63%*
B.Nase	192	36 109	10	*56%*	70 488	18	*55%*	119 904	30	*53%*
B.Nakam	1 093	207 916	57	*56%*	346 101	103	*64%*	524 118	164	*68%*
B.Phonlai	659	146 381	35	*48%*	237 715	63	*56%*	350 326	101	*62%*
B.Nadi	344	68 396	18	*53%*	121 816	33	*57%*	222 853	54	*50%*
B.Nakiao	432	83 533	22	*55%*	144 545	41	*61%*	258 287	67	*55%*
B.Mahaxai-Nua	190	36 035	10	*56%*	70 402	18	*55%*	118 315	29	*52%*
B.Mahaxai-Kang	338	68 176	18	*53%*	120 318	32	*57%*	220 964	53	*50%*
B.Mahaxai-Tai	389	77 712	20	*53%*	133 843	37	*59%*	198 129	59	*64%*
B.Phova-Nua	389	77 712	20	*53%*	133 843	37	*59%*	198 129	59	*64%*
B.Phova-Tai	397	79 066	21	*54%*	135 471	38	*60%*	201 607	60	*64%*
B.Somsanouk	271	58 292	14	*49%*	90 351	25	*60%*	151 810	42	*59%*
B.Dang-Kang	323	65 504	17	*52%*	117 106	31	*56%*	214 057	51	*49%*
B.Phanang	252	55 474	13	*48%*	85 727	24	*59%*	143 163	39	*57%*
B.Phohe	445	85 071	23	*55%*	147 627	42	*61%*	263 555	69	*55%*
B.Hai-Nua	232	52 619	12	*46%*	81 061	22	*58%*	135 907	36	*56%*
B.Hai-Tai	282	59 757	15	*50%*	93 347	26	*61%*	155 538	43	*59%*
B.Vangpoun	754	159 413	39	*50%*	260 788	72	*58%*	387 749	114	*63%*
B.Phonmuang	127	27 359	7	*50%*	42 443	12	*61%*	63 489	19	*66%*
B.Kang	356	73 319	19	*52%*	124 855	34	*58%*	185 555	54	*63%*
B.Thongkouang	628	142 061	33	*47%*	230 052	60	*56%*	336 412	95	*61%*
B.Phondeng	232	52 619	12	*46%*	81 061	22	*58%*	135 907	36	*56%*
		6 479 196		***51%***	**10 681 977**		***59%***	**17 252 345**		***59%***
Nakay										
B.Thamuang	202	48 336	11	*44%*	73 441	19	*56%*	108 223	31	*61%*
B.Songkhon	238	53 899	13	*47%*	82 602	22	*59%*	137 796	37	*56%*
B.Thakhankeo	363	73 576	19	*52%*	126 439	34	*58%*	187 543	55	*63%*
B.Phonxai	50	16 048	3	*33%*	22 710	5	*44%*	31 733	7	*50%*
B.Natan	425	82 216	22	*54%*	143 004	40	*61%*	254 909	66	*54%*
B.Nahang	347	69 566	18	*53%*	123 228	33	*57%*	224 542	54	*51%*
B.Phonbak	126	27 322	7	*50%*	42 357	12	*61%*	61 899	18	*65%*
B.Namuang	177	34 497	9	*55%*	54 686	16	*66%*	97 688	27	*59%*
B.Phonkham	186	35 888	10	*56%*	68 990	17	*54%*	116 575	29	*52%*
B.Nabon	267	58 145	14	*49%*	90 136	25	*61%*	148 581	41	*58%*
B.Nathan	139	28 860	7	*51%*	45 482	13	*63%*	83 374	22	*55%*
B.Nadao	157	31 642	8	*54%*	50 020	15	*64%*	90 431	24	*57%*
B.Vang-Hin	218	51 044	12	*46%*	77 936	21	*57%*	115 230	33	*62%*
B.Donkeo	308	63 893	16	*51%*	99 511	29	*62%*	166 123	47	*61%*
B.Kouan	194	36 182	10	*56%*	71 857	19	*55%*	120 104	30	*53%*
B.Gnang	318	65 320	17	*52%*	102 464	30	*63%*	169 751	48	*61%*
B.Xong	436	84 740	23	*55%*	144 760	41	*61%*	260 076	67	*55%*
B.Muanglouang	950	187 819	49	*54%*	309 631	90	*62%*	465 824	143	*66%*
B.Pa	398	79 103	21	*54%*	135 514	38	*59%*	244 223	62	*53%*
B.Nahao	175	34 424	9	*55%*	54 600	16	*66%*	97 588	27	*59%*
B.Mai	91	21 796	5	*44%*	33 282	9	*56%*	49 175	14	*61%*
B.Kaching	134	27 616	7	*50%*	43 984	13	*62%*	80 045	20	*54%*
B.Tohua	358	73 393	19	*52%*	126 224	34	*58%*	185 754	54	*63%*
B.Navang	320	65 394	17	*52%*	102 550	30	*63%*	171 341	49	*61%*
B.Phangdeng-Nua	139	28 860	7	*51%*	45 482	13	*63%*	83 374	22	*55%*
B.Phangdeng-Tai	152	30 398	8	*52%*	48 564	14	*64%*	87 202	23	*56%*
B.Naphou	111	24 651	6	*47%*	37 949	10	*59%*	56 482	17	*64%*

LOAD FORECAST

Scenario 24h

Settlement name	population	First year Consumption (kWh)	First year Peak (kW)	First year Domestic share	Mid-term Consumption (kWh)	Mid-term Peak (kW)	Mid-term Domestic share	Horizon Consumption (kWh)	Horizon Peak (kW)	Horizon Domestic share
B.Thongxat	170	33 180	9	*54 %*	53 102	16	*65%*	94 259	25	*58%*
B.Xoklek	235	53 789	13	*47 %*	81 190	22	*58%*	136 107	36	*56%*
B.Nakang	108	24 541	6	*48 %*	37 820	10	*59%*	56 282	16	*64%*
B.Teung	268	58 182	14	*49 %*	90 179	25	*61%*	150 120	41	*59%*
B.Gnoungkouang	85	20 515	4	*41 %*	31 784	8	*55%*	45 896	13	*60%*
B.Singthong	178	34 534	9	*55 %*	54 729	16	*66%*	97 787	27	*59%*
B.Xeuk	84	20 478	4	*41 %*	31 741	8	*55%*	45 846	13	*60%*
B.Nat	60	17 476	3	*36 %*	25 620	6	*48%*	36 751	9	*55%*
B.Thaphaiban	259	56 791	14	*49 %*	87 311	24	*60%*	146 592	40	*58%*
B.Kobong	211	49 727	11	*45 %*	75 112	20	*56%*	111 801	32	*62%*
B.Mai	96	23 039	5	*46 %*	34 780	9	*57%*	51 064	15	*62%*
B.Thong	171	33 217	9	*54 %*	53 188	16	*65%*	95 849	26	*59%*
B.Naphuang	383	76 432	20	*53 %*	132 345	37	*59%*	196 240	58	*64%*
B.Vangle	104	23 334	5	*45 %*	36 365	10	*58%*	54 493	16	*63%*
B.Hang	85	20 515	4	*41 %*	31 784	8	*55%*	45 896	13	*60%*
B.Nava	102	23 260	5	*46 %*	36 279	10	*58%*	52 903	15	*63%*
B.Houayhat	267	58 145	14	*49 %*	90 136	25	*61%*	148 581	41	*58%*
B.Pung	125	26 226	6	*49 %*	41 074	11	*60%*	61 799	18	*65%*
B.Tong	145	29 081	7	*51 %*	46 980	14	*63%*	85 213	22	*56%*
B.Bung	111	24 651	6	*47 %*	37 949	10	*59%*	56 482	17	*64%*
B.Pu	204	48 409	11	*44 %*	73 570	19	*56%*	108 423	31	*61%*
B.Maknao	48	15 975	3	*33 %*	22 581	5	*44%*	31 533	7	*50%*
B.Vangkhouay	158	31 679	8	*54 %*	50 063	15	*64%*	90 481	24	*57%*
B.Nakay-Nua	390	77 749	20	*53 %*	133 886	37	*59%*	198 179	59	*64%*
B.Taodinchi	5	9 094	3	*0 %*	11 879	3	*10%*	13 891	4	*10%*
B.Phonkho	307	63 856	16	*51 %*	99 468	29	*62%*	166 023	47	*61%*
B.Ka-Oy	171	33 217	9	*54 %*	53 188	16	*65%*	95 849	26	*59%*
B.Kenggnao	90	21 759	5	*44 %*	33 239	9	*56%*	47 686	13	*60%*
B.Nasida	291	61 148	15	*50 %*	96 214	28	*62%*	159 016	44	*60%*
B.Nadan	581	104 910	30	*59 %*	217 938	56	*54%*	318 520	89	*60%*
B.Houaphou-Ak	1 354	245 070	70	*58 %*	411 681	127	*67%*	628 781	203	*70%*
B.Thong	506	94 733	26	*57 %*	162 910	48	*63%*	288 354	78	*57%*
B.Buk	168	33 106	9	*54 %*	51 776	15	*65%*	94 159	25	*58%*
B.Koune	253	55 511	13	*48 %*	85 770	24	*59%*	143 263	39	*57%*
B.Nameuy	253	55 511	13	*48 %*	85 770	24	*59%*	143 263	39	*57%*
B.Nameo	159	31 715	8	*53 %*	50 106	15	*64%*	90 581	24	*57%*
B.Maka-Tai	97	23 076	5	*46 %*	34 823	9	*57%*	51 114	15	*62%*
B.Maka-Nua	97	23 076	5	*46 %*	34 823	9	*57%*	51 114	15	*62%*
B.Vangyiam	186	35 888	10	*56 %*	68 990	17	*54%*	116 575	29	*52%*
		3 207 223		***51%***	**5 245 546**		***60%***	**8 502 352**		***60%***
Nongbok										
B.Nonsila	642	143 636	34	*47 %*	233 177	61	*56%*	343 219	98	*61%*
B.Nachampa	504	93 600	26	*57 %*	161 583	47	*63%*	286 764	77	*57%*
B.Nalak	502	93 526	26	*57 %*	161 497	47	*63%*	286 664	77	*57%*
B.Nanou	1 126	213 369	58	*56 %*	353 850	106	*64%*	536 692	169	*68%*
B.Pongkiou	1 356	246 204	70	*59 %*	411 767	127	*67%*	630 370	203	*70%*
B.Koutchap	667	147 735	35	*48 %*	239 342	64	*56%*	352 365	101	*62%*
B.Phonpheng	1 321	240 677	68	*58 %*	402 692	124	*67%*	616 207	198	*70%*
B.Songmuang-Nua	642	143 636	34	*47 %*	233 177	61	*56%*	343 219	98	*61%*
B.Phonte	692	150 774	36	*49 %*	245 463	66	*57%*	362 850	105	*62%*
B.Songmuang-Tai	775	163 365	41	*51 %*	266 695	74	*59%*	396 445	118	*64%*
B.Xiangvang-Tha	537	99 053	28	*58 %*	170 572	51	*64%*	300 778	82	*58%*
B.Xiangvang-Thong	1 296	237 638	67	*58 %*	396 571	121	*66%*	605 721	194	*70%*
B.Nake	346	69 530	18	*53 %*	123 142	33	*57%*	223 003	54	*50%*
B.Nongpalat	592	106 375	30	*59 %*	220 934	57	*54%*	322 198	90	*60%*
B.Dongkhoung	1 281	234 967	66	*58 %*	393 403	120	*66%*	600 304	192	*70%*
B.Nanoy	718	154 910	38	*49 %*	251 628	68	*58%*	373 436	109	*63%*
B.Nongpham	936	186 244	49	*54 %*	306 505	88	*62%*	460 456	141	*66%*
B.Phonxai	665	146 602	35	*48 %*	239 213	64	*57%*	352 165	101	*62%*

LOAD FORECAST

Scenario 24h

Settlement name	population	First year Consumption (kWh)	First year Peak (kW)	First year Domestic share	Mid-term Consumption (kWh)	Mid-term Peak (kW)	Mid-term Domestic share	Horizon Consumption (kWh)	Horizon Peak (kW)	Horizon Domestic share
B.Donggnang	1 442	257 846	74	*59%*	433 170	135	*68%*	664 215	216	*71%*
B.Laokhoung	606	139 133	32	*46%*	224 060	58	*55%*	327 566	92	*60%*
B.Nakham	929	184 927	48	*53%*	304 921	88	*62%*	458 467	140	*66%*
B.Nonchik	194	36 182	10	*56%*	71 857	19	*55%*	120 104	30	*53%*
B.Dongkhouang	1 566	276 184	81	*60%*	463 777	146	*68%*	713 863	234	*72%*
B.Dongboun-Noy	785	163 733	41	*50%*	268 408	74	*59%*	400 074	119	*64%*
B.Dongboun-Gnai	960	189 246	50	*54%*	312 584	91	*62%*	470 892	145	*67%*
B.Dongkasin	1 117	211 978	58	*56%*	352 223	105	*64%*	534 653	168	*68%*
B.Nongbok	631	142 172	33	*47%*	230 181	60	*55%*	338 101	96	*61%*
B.Namphou	957	189 136	50	*54%*	312 455	91	*62%*	469 252	144	*67%*
B.Namanpa	948	187 745	49	*54%*	309 545	90	*62%*	465 674	143	*66%*
B.Sokbo	664	146 565	35	*48%*	239 170	64	*57%*	350 626	101	*62%*
B.Bungsantha	675	149 089	36	*48%*	240 926	64	*57%*	355 793	103	*62%*
B.Hatxiangdi	677	149 163	36	*48%*	242 295	65	*57%*	357 433	103	*62%*
B.Na-Tai	420	82 032	22	*54%*	141 506	40	*60%*	253 069	65	*54%*
B.Bungsan-Theung	744	157 986	39	*50%*	259 075	71	*58%*	384 071	113	*63%*
B.Phak-Itou	2 354	387 832	120	*64%*	660 731	218	*72%*	1 031 080	351	*75%*
B.Donkhiao-Nua	755	160 510	40	*50%*	262 071	72	*59%*	387 799	114	*63%*
B.Dongsangam	1 452	259 273	75	*59%*	436 124	136	*68%*	667 843	217	*71%*
B.Mouangkhai	1 204	223 656	62	*57%*	373 626	113	*65%*	568 498	181	*69%*
B.Donkhiao-Kang	958	189 173	50	*54%*	312 498	91	*62%*	469 302	144	*67%*
B.Hatxaifong	737	157 728	39	*50%*	257 491	70	*58%*	380 642	112	*63%*
B.Phakphua	1 132	213 589	59	*56%*	355 391	106	*65%*	540 071	170	*69%*
B.Nongsaphang	408	80 531	21	*54%*	138 467	39	*60%*	249 291	64	*54%*
B.Nonglom	452	86 388	23	*55%*	149 212	43	*62%*	265 544	69	*55%*
B.Tantheung	527	97 625	27	*58%*	167 619	49	*64%*	297 150	81	*58%*
B.Nongsaphang	549	100 554	28	*58%*	173 611	52	*64%*	304 556	84	*59%*
B.Navang-Thong	490	92 025	25	*56%*	158 458	46	*63%*	281 447	75	*57%*
B.Nongli	352	72 112	18	*51%*	124 683	34	*58%*	183 815	53	*63%*
B.Sadu-Nua	1 537	271 938	79	*60%*	457 484	144	*68%*	703 078	230	*71%*
B.Sadu-Tai	784	163 696	41	*51%*	268 365	74	*59%*	400 024	119	*64%*
B.Thamouang	1 393	250 744	72	*59%*	420 970	130	*67%*	644 734	209	*71%*
B.Phonsao-E	1 273	233 613	66	*58%*	390 535	119	*66%*	596 775	191	*70%*
B.Navang-Nua	1 527	270 510	79	*60%*	454 531	143	*68%*	698 010	228	*71%*
B.Navang-Tai	885	178 009	46	*52%*	294 177	84	*61%*	440 725	134	*66%*
B.Dongphangphao	861	175 007	45	*52%*	288 098	82	*61%*	430 290	130	*65%*
B.Pakxe	276	59 536	15	*50%*	91 806	26	*61%*	153 599	42	*59%*
B.Khokkong	997	194 847	52	*54%*	321 788	94	*63%*	485 255	150	*67%*
B.Pakdeut	617	140 597	33	*47%*	227 056	59	*55%*	332 734	94	*61%*
B.Donmakmo	976	191 955	51	*54%*	317 078	92	*63%*	476 459	147	*67%*
B.Donkhiao-Tai	935	186 207	49	*54%*	306 462	88	*62%*	460 406	141	*66%*
		9 972 613		***55%***	**16 625 696**		***63%***	**25 505 836**		***66%***
Thakhek										
B.Phon	1 488	264 837	77	*60%*	444 001	139	*68%*	682 057	222	*71%*
B.Lammalat	245	54 157	13	*47%*	84 143	23	*59%*	141 175	38	*57%*
B.Nongphu	604	137 999	32	*46%*	223 974	58	*55%*	327 416	92	*60%*
B.Phongnia-Noy	914	182 255	48	*53%*	301 753	87	*62%*	451 610	138	*66%*
B.Donmalai	2 133	356 388	109	*63%*	605 724	198	*71%*	942 420	318	*74%*
B.Khok-Het	720	154 984	38	*49%*	252 954	69	*58%*	373 585	109	*63%*
B.Gnangngam	273	58 366	14	*49%*	91 677	26	*61%*	151 960	42	*59%*
B.Phongnia-Gnai	614	139 427	32	*46%*	225 687	59	*55%*	331 094	94	*60%*
B.Gnangpung	307	63 856	16	*51%*	99 468	29	*62%*	166 023	47	*61%*
B.Gnang-Kao	267	58 145	14	*49%*	90 136	25	*61%*	148 581	41	*58%*
B.Thadua	1 202	223 583	62	*57%*	373 540	113	*65%*	568 348	181	*69%*
B.Mouanglatkhouay	498	93 379	26	*57%*	160 042	47	*63%*	284 875	77	*57%*
B.Gnangkom	1 028	199 166	53	*55%*	329 407	97	*63%*	497 630	155	*67%*
B.Nakoum	586	106 154	30	*59%*	219 393	56	*54%*	320 309	90	*60%*
B.Dongkasen	725	155 167	38	*49%*	254 452	69	*58%*	375 424	110	*63%*
B.Kangba	348	69 603	18	*53%*	123 271	33	*57%*	224 642	54	*51%*

LOAD FORECAST

Scenario 24h

Settlement name	population	First year			Mid-term			Horizon		
		Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
B.Honghoi	320	65 394	17	*52%*	102 550	30	*63%*	171 341	49	*61%*
B.Khamdokmai	250	55 400	13	*48%*	85 641	24	*59%*	143 014	39	*57%*
B.Khokxang	297	62 428	16	*51%*	97 755	28	*62%*	160 955	45	*60%*
B.Nakhambo	187	35 925	10	*56%*	70 273	18	*55%*	116 675	29	*52%*
B.Tha-Ngam	1 080	206 378	56	*55%*	343 019	102	*64%*	518 850	162	*68%*
B.Nongphanna	152	30 398	8	*52%*	48 564	14	*64%*	87 202	23	*56%*
B.Bang-Hiang	942	186 465	49	*53%*	308 047	89	*62%*	463 835	142	*66%*
B.Mouangba	181	34 644	9	*55%*	56 098	17	*66%*	99 427	27	*59%*
B.Thahe	866	176 251	45	*52%*	289 596	82	*61%*	432 179	131	*65%*
B.Xiangle	823	169 370	43	*51%*	278 894	78	*60%*	415 976	125	*65%*
B.Dongxok	465	87 926	24	*55%*	152 294	44	*62%*	270 861	71	*56%*
B.Phonxai	636	143 416	34	*47%*	231 679	61	*56%*	339 940	97	*61%*
B.Khamboun	700	152 128	37	*49%*	248 330	67	*57%*	366 379	107	*62%*
B.Dong-Tai	742	157 912	39	*50%*	257 706	70	*58%*	382 431	112	*63%*
B.Napho-Tha	939	186 354	49	*53%*	307 875	89	*62%*	462 096	142	*66%*
B.Nongthang	375	76 137	20	*53%*	129 478	35	*58%*	192 761	57	*63%*
B.Nadinchi	339	68 212	18	*53%*	121 601	33	*57%*	221 064	53	*50%*
B.Nakang	388	77 675	20	*53%*	132 560	37	*59%*	198 029	59	*64%*
B.Don-Thong	592	106 375	30	*59%*	220 934	57	*54%*	322 198	90	*60%*
B.Don-Gnai	456	87 595	24	*56%*	150 624	43	*62%*	267 283	70	*55%*
B.Nontoum	357	73 356	19	*52%*	124 898	34	*58%*	185 604	54	*63%*
B.Nahe	1 461	260 664	75	*59%*	437 794	137	*68%*	671 421	218	*71%*
B.Pakpeng	602	137 926	32	*46%*	223 888	58	*55%*	327 316	92	*60%*
B.Homphan	237	53 863	13	*47%*	82 559	22	*59%*	137 746	37	*56%*
B.Koktong	290	61 111	15	*50%*	94 931	27	*61%*	158 966	44	*60%*
B.Phalem	429	83 423	22	*55%*	143 176	40	*61%*	256 648	66	*54%*
B.Nangou	684	149 420	36	*48%*	243 836	65	*57%*	359 372	104	*62%*
B.Phonkhoun	222	51 191	12	*46%*	78 108	21	*57%*	115 480	33	*62%*
B.Phonsavang	363	73 576	19	*52%*	126 439	34	*58%*	187 543	55	*63%*
B.Khamphaknam	238	53 899	13	*47%*	82 602	22	*59%*	137 796	37	*56%*
B.Doy	207	49 580	11	*45%*	74 940	20	*56%*	110 062	31	*61%*
B.Phokham-Tai	449	86 278	23	*55%*	149 083	43	*62%*	265 344	69	*55%*
B.Nataketh	647	144 880	34	*48%*	234 675	62	*56%*	345 108	99	*61%*
B.Mouang	264	56 975	14	*48%*	88 767	25	*60%*	148 381	40	*58%*
B.Hatkam	202	48 336	11	*44%*	73 441	19	*56%*	108 223	31	*61%*
B.Na-Ngeo	329	66 785	17	*52%*	118 647	32	*56%*	217 436	52	*50%*
B.Phonngam	375	76 137	20	*53%*	129 478	35	*58%*	192 761	57	*63%*
B.Phondou	255	56 644	14	*49%*	87 096	24	*60%*	144 803	39	*58%*
B.Nakok	525	96 492	27	*57%*	167 533	49	*64%*	295 560	80	*58%*
B.Nangoua	142	28 970	7	*51%*	45 611	13	*63%*	83 574	22	*55%*
B.Na	315	65 210	17	*52%*	102 335	30	*63%*	169 552	48	*61%*
B.Nakaikhia	688	150 627	36	*49%*	245 291	66	*57%*	361 161	105	*62%*
B.Thadua	397	79 066	21	*54%*	135 471	38	*60%*	201 607	60	*64%*
B.Phonsavan	341	68 286	18	*53%*	121 687	33	*57%*	221 214	53	*50%*
B.Nase	266	58 109	14	*49%*	90 093	25	*61%*	148 531	41	*58%*
B.Koktong	432	83 533	22	*55%*	144 545	41	*61%*	258 287	67	*55%*
B.Veun	558	101 945	29	*58%*	211 903	54	*53%*	309 574	86	*59%*
B.Namouang	854	173 690	45	*52%*	286 557	81	*61%*	428 401	129	*65%*
B.Nanignom	672	147 919	35	*48%*	240 797	64	*57%*	354 154	102	*62%*
B.Sa-Ngom	385	76 505	20	*53%*	132 431	37	*59%*	196 389	58	*64%*
B.Nagno	424	82 179	22	*54%*	141 721	40	*60%*	254 859	66	*54%*
B.Nanongkeo	355	73 282	19	*52%*	124 812	34	*58%*	184 015	54	*63%*
B.Thok	315	65 210	17	*52%*	102 335	30	*63%*	169 552	48	*61%*
B.Natat	606	139 133	32	*46%*	224 060	58	*55%*	327 566	92	*60%*
B.Namdon	383	76 432	20	*53%*	132 345	37	*59%*	196 240	58	*64%*
B.Nakhangxang	1 008	196 311	52	*55%*	324 784	95	*63%*	490 423	152	*67%*
B.Kenggnang	772	162 195	40	*50%*	265 326	73	*59%*	394 806	117	*64%*
B.Phonsavang	226	52 398	12	*47%*	79 563	21	*58%*	117 269	34	*63%*
B.Phonsoung	189	35 998	10	*56%*	70 359	18	*55%*	118 265	29	*52%*
B.Phonpheng	554	100 738	28	*58%*	211 688	54	*53%*	307 785	85	*59%*

LOAD FORECAST

Scenario 24h

Settlement name	population	First year Consumption (kWh)	First year Peak (kW)	First year Domestic share	Mid-term Consumption (kWh)	Mid-term Peak (kW)	Mid-term Domestic share	Horizon Consumption (kWh)	Horizon Peak (kW)	Horizon Domestic share
B.Phin	149	30 288	8	*52%*	47 195	14	*63%*	87 003	23	*56%*
B.Oudomvilai	284	59 830	15	*50%*	93 433	26	*61%*	155 688	43	*59%*
B.Maiphosi	737	157 728	39	*50%*	257 491	70	*58%*	380 642	112	*63%*
B.Konvangpha	448	86 241	23	*55%*	147 799	42	*61%*	265 294	69	*55%*
B.Kok-Hai	854	173 690	45	*52%*	286 557	81	*61%*	428 401	129	*65%*
B.Songkhon	178	34 534	9	*55%*	54 729	16	*66%*	97 787	27	*59%*
B.Nagnavay	1 187	221 971	62	*57%*	369 132	111	*65%*	561 491	178	*69%*
B.Thakhe	454	86 462	23	*55%*	149 298	43	*61%*	267 133	70	*56%*
B.Dondon	251	55 437	13	*48%*	85 684	24	*59%*	143 114	39	*57%*
B.Nasatho	344	68 396	18	*53%*	121 816	33	*57%*	222 853	54	*50%*
B.Phonsitha	1 871	319 196	96	*62%*	540 102	174	*70%*	836 267	279	*73%*
B.Dongmouangkhai	853	173 653	45	*52%*	286 514	81	*61%*	428 301	129	*65%*
B.Tham	555	101 835	29	*58%*	211 731	54	*53%*	307 885	85	*59%*
B.Xiangven	329	66 785	17	*52%*	118 647	32	*56%*	217 436	52	*50%*
B.Namuang	1 533	270 731	79	*60%*	456 029	143	*68%*	701 288	230	*71%*
B.Tan	1 592	279 260	82	*60%*	471 225	149	*69%*	724 498	238	*72%*
B.Kabout	1 088	207 732	56	*56%*	344 646	102	*64%*	522 329	164	*68%*
B.Houana	586	106 154	30	*59%*	219 393	56	*54%*	320 309	90	*60%*
B.Phonsa-At	653	145 100	34	*47%*	236 173	63	*56%*	346 947	99	*61%*
B.Houay-Nangli	1 812	310 667	93	*62%*	526 189	169	*70%*	813 108	271	*73%*
B.Laongoua	1 924	326 445	98	*62%*	553 757	179	*71%*	857 538	287	*73%*
B.Thakhek-Nua	2 873	462 032	146	*66%*	790 478	266	*74%*	1 240 156	427	*76%*
B.Phonsamam	1 660	289 180	85	*61%*	488 048	155	*69%*	751 236	248	*72%*
B.Thakhek-Kang	1 611	282 078	83	*61%*	475 848	151	*69%*	733 194	241	*72%*
B.Nabong	2 035	343 245	104	*63%*	581 282	189	*71%*	903 358	304	*74%*
B.Santisouk	2 088	350 494	107	*63%*	594 937	194	*71%*	924 628	312	*74%*
B.Somsanouk	1 743	300 711	89	*61%*	508 083	162	*70%*	784 880	260	*72%*
B.Somsa-At	2 347	387 575	120	*64%*	659 147	218	*72%*	1 027 652	349	*75%*
B.Chomthong	1 725	297 929	88	*61%*	503 502	161	*69%*	777 724	258	*72%*
B.Nongboua-Ngeun	1 545	272 232	79	*60%*	459 111	144	*68%*	706 606	231	*72%*
B.Nongboua-Kham	883	177 936	46	*52%*	292 850	83	*61%*	439 186	133	*66%*
B.Khambon	2 521	411 992	128	*65%*	702 040	234	*73%*	1 098 420	375	*75%*
B.Phonphim	2 192	364 917	112	*64%*	620 878	204	*72%*	965 579	327	*74%*
B.Donkhuanxang	1 610	282 042	83	*61%*	474 522	150	*69%*	731 605	241	*72%*
B.Pakdong	1 469	262 018	76	*59%*	439 421	137	*68%*	674 950	220	*71%*
B.Laophoxai	766	161 975	40	*50%*	263 827	73	*59%*	392 967	116	*64%*
B.Chomcheng	495	93 269	26	*57%*	159 913	47	*63%*	283 186	76	*57%*
B.Thakhek-Tai	181	34 644	9	*55%*	56 098	17	*66%*	99 427	27	*59%*
B.Phonsavan	413	80 714	21	*54%*	139 965	39	*60%*	251 130	64	*54%*
B.Donmouang	894	179 400	47	*53%*	295 847	84	*61%*	444 304	135	*66%*
B.Nabouam	453	86 425	23	*55%*	149 255	43	*61%*	267 083	70	*56%*
B.Kham-Ang	635	143 379	34	*47%*	231 636	61	*56%*	339 841	97	*61%*
B.Paksimang	296	62 392	16	*51%*	96 472	28	*62%*	160 905	45	*60%*
B.Nongve	478	90 524	25	*56%*	155 376	45	*62%*	276 129	73	*56%*
B.Somboun	204	48 409	11	*44%*	73 570	19	*56%*	108 423	31	*61%*
B.Somsanouk	437	84 777	23	*55%*	146 043	42	*61%*	260 126	67	*55%*
B.Sikhot	467	89 060	24	*56%*	152 380	44	*62%*	272 401	72	*56%*
B.Koungsi	148	30 251	8	*53%*	47 109	14	*63%*	85 413	22	*56%*
B.Nong-Niang	1 683	292 145	86	*61%*	492 844	157	*69%*	761 621	252	*72%*
B.Khoksaohuan	332	66 895	17	*52%*	118 776	32	*56%*	217 635	52	*50%*
B.Mouangsoum	473	89 280	24	*56%*	153 921	44	*62%*	274 340	73	*56%*
B.Nadon	264	56 975	14	*48%*	88 767	25	*60%*	148 381	40	*58%*
		17 639 151		***56%***	**29 698 231**		***64%***	**46 366 237**		***66%***
Xaibouathong										
B.Nanoy-Thong	487	91 915	25	*57%*	158 286	46	*63%*	279 707	75	*57%*
B.Nanoy-Donng	126	27 322	7	*50%*	42 357	12	*61%*	61 899	18	*65%*
B.Phakhat	367	74 783	19	*52%*	127 851	35	*58%*	189 233	55	*63%*
B.Mouangkhai	26	13 046	3	*24%*	16 588	3	*30%*	22 687	4	*38%*
B.Ibot	18	11 692	3	*18%*	15 004	3	*25%*	19 258	4	*30%*

LOAD FORECAST

Scenario 24h

Settlement name	population	First year			Mid-term			Horizon		
		Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share	Consumption (kWh)	Peak (kW)	Domestic share
B.Nalouang	261	56 865	14	*48 %*	88 638	25	*60%*	146 742	40	*58%*
B.Nanok	198	37 389	10	*57 %*	72 029	19	*55%*	121 793	31	*53%*
B.Xokthang-Nua	238	53 899	13	*47 %*	82 602	22	*59%*	137 796	37	*56%*
B.Nahang	188	35 962	10	*56 %*	70 316	18	*55%*	118 165	29	*52%*
B.Phasong	125	26 226	6	*49 %*	41 074	11	*60%*	61 799	18	*65%*
B.Pakon-Dong	389	77 712	20	*53 %*	133 843	37	*59%*	198 129	59	*64%*
B.Nakadom	257	56 718	14	*49 %*	87 182	24	*60%*	144 953	39	*58%*
B.Pakon-Thong	719	154 947	38	*49 %*	252 911	69	*58%*	373 535	109	*63%*
B.Phakhong-Nua	407	80 494	21	*54 %*	138 424	39	*60%*	247 752	63	*53%*
B.Phonsa-At	265	57 012	14	*48 %*	88 810	25	*60%*	148 481	40	*58%*
B.Nala-Ong	134	27 616	7	*50 %*	43 984	13	*62%*	80 045	20	*54%*
B.Sixiang-Mai	291	61 148	15	*50 %*	96 214	28	*62%*	159 016	44	*60%*
B.Namakmi-Dong	245	54 157	13	*47 %*	84 143	23	*59%*	141 175	38	*57%*
B.Nakham-Noy	429	83 423	22	*55 %*	143 176	40	*61%*	256 648	66	*54%*
B.Hai	211	49 727	11	*45 %*	75 112	20	*56%*	111 801	32	*62%*
B.Nakhamman	366	74 747	19	*52 %*	127 808	35	*58%*	189 183	55	*63%*
B.Nakhamchong-	311	64 003	16	*51 %*	100 880	29	*63%*	166 323	47	*61%*
B.Nakhamchong-	198	37 389	10	*57 %*	72 029	19	*55%*	121 793	31	*53%*
B.Napakha	274	58 403	14	*49 %*	91 720	26	*61%*	152 009	42	*59%*
B.Don	57	17 366	3	*37 %*	24 251	5	*46%*	35 111	9	*53%*
B.Kengchon	634	142 282	33	*47 %*	231 593	61	*56%*	339 791	97	*61%*
B.Phon-Gnang	201	48 299	11	*44 %*	73 398	19	*56%*	108 173	31	*61%*
B.Xokthang-Tai	357	73 356	19	*52 %*	124 898	34	*58%*	185 604	54	*63%*
B.Maiphosy	157	31 642	8	*54 %*	50 020	15	*64%*	90 431	24	*57%*
B.Namakmi-Thong	173	33 290	9	*54 %*	53 274	16	*65%*	95 998	26	*58%*
B.Phahoy-Dong	405	79 360	21	*53 %*	137 098	38	*60%*	247 652	63	*53%*
B.Phahoy-Thong	420	82 032	22	*54 %*	141 506	40	*60%*	253 069	65	*54%*
B.Nongtat	400	79 176	21	*54 %*	135 600	38	*59%*	245 763	62	*53%*
B.Phakhong-Tai	482	90 671	25	*56 %*	156 831	46	*62%*	277 918	74	*56%*
B.Nakham-Gnai	134	27 616	7	*50 %*	43 984	13	*62%*	80 045	20	*54%*
B.Kase	108	24 541	6	*48 %*	37 820	10	*59%*	56 282	16	*64%*
B.Nakhong	316	65 247	17	*52 %*	102 378	30	*63%*	169 602	48	*61%*
B.Phon-Kao	101	23 223	5	*46 %*	34 996	9	*57%*	52 803	15	*63%*
B.Kodong	177	34 497	9	*55 %*	54 686	16	*66%*	97 688	27	*59%*
B.Nakathing	274	58 403	14	*49 %*	91 720	26	*61%*	152 009	42	*59%*
B.Phasava	243	54 083	13	*47 %*	84 057	23	*59%*	139 585	37	*57%*
B.Houaykhon	261	56 865	14	*48 %*	88 638	25	*60%*	146 742	40	*58%*
B.Phonnadi	358	73 393	19	*52 %*	126 224	34	*58%*	185 754	54	*63%*
B.Nakokkhen	457	87 632	24	*56 %*	150 710	43	*62%*	268 872	71	*56%*
B.Nakang	122	26 115	6	*49 %*	40 945	11	*61%*	61 600	18	*65%*
B.Houayxot	71	18 940	4	*39 %*	28 616	7	*52%*	40 479	11	*57%*
B.Naphao	672	147 919	35	*48 %*	240 797	64	*57%*	354 154	102	*62%*
B.Namkapo	231	52 582	12	*46 %*	81 018	22	*58%*	119 058	35	*63%*
B.Dongpang	230	52 545	12	*46 %*	80 975	22	*58%*	119 008	35	*63%*
B.Thongtian	287	61 001	15	*50 %*	94 802	27	*61%*	157 327	44	*59%*
B.Nongphu	407	80 494	21	*54 %*	138 424	39	*60%*	247 752	63	*53%*
B.Vang-Hin	319	65 357	17	*52 %*	102 507	30	*63%*	169 801	48	*61%*
B.Somboun	433	83 570	22	*55 %*	144 588	41	*61%*	258 337	67	*55%*
B.Dongnakham	536	99 016	28	*58 %*	170 529	51	*64%*	300 728	82	*58%*
B.Naxiangkhouan	322	65 467	17	*52 %*	117 063	31	*56%*	213 957	51	*49%*
B.Gnang	189	35 998	10	*56 %*	70 359	18	*55%*	118 265	29	*52%*
B.Lao	134	27 616	7	*50 %*	43 984	13	*62%*	80 045	20	*54%*
B.Pakouay	722	155 057	38	*49 %*	253 083	69	*58%*	375 225	110	*63%*
B.Houakhoua	454	86 462	23	*55 %*	149 298	43	*61%*	267 133	70	*56%*
B.Koutnamsai	420	82 032	22	*54 %*	141 506	40	*60%*	253 069	65	*54%*
B.Pakasa	456	87 595	24	*56 %*	150 624	43	*62%*	267 283	70	*55%*
B.Phouxiang	51	16 085	3	*33 %*	22 753	5	*44%*	33 272	8	*52%*
B.Phasa-Ngum	201	48 299	11	*44 %*	73 398	19	*56%*	108 173	31	*61%*
		3 841 719		***51%***	**6 339 932**		***59%***	**10 423 480**		***58%***

LOAD FORECAST

Scenario 24h

Settlement name	population	First year Consumption (kWh)	First year Peak (kW)	First year Domestic share	Mid-term Consumption (kWh)	Mid-term Peak (kW)	Mid-term Domestic share	Horizon Consumption (kWh)	Horizon Peak (kW)	Horizon Domestic share
Xebangfai										
B.Nonphang	229	52 508	12	*46 %*	80 932	22	*58%*	118 958	35	*63%*
B.Noy	232	52 619	12	*46 %*	81 061	22	*58%*	135 907	36	*56%*
B.Phonthongdi	225	51 301	12	*45 %*	79 477	21	*58%*	117 169	34	*63%*
B.Nabung	537	99 053	28	*58 %*	170 572	51	*64%*	300 778	82	*58%*
B.Houaylangmu	355	73 282	19	*52 %*	124 812	34	*58%*	184 015	54	*63%*
B.Sang	1 443	257 882	74	*59 %*	433 213	135	*68%*	664 315	216	*71%*
B.Nakhom-Thong	624	140 854	33	*47 %*	228 640	60	*55%*	336 162	95	*61%*
B.Nakhom-Kao	351	72 075	18	*51 %*	123 400	33	*57%*	183 765	53	*63%*
B.Som	1 061	203 559	55	*55 %*	338 396	100	*64%*	511 644	160	*68%*
B.Gnang-Gnai	1 324	240 788	68	*58 %*	404 061	124	*67%*	616 406	198	*70%*
B.Dongmak	676	149 126	36	*48 %*	242 209	65	*57%*	355 843	103	*62%*
B.Tung	1 641	286 361	84	*61 %*	482 185	153	*69%*	744 029	245	*72%*
B.Dongsavang	203	48 373	11	*44 %*	73 484	19	*56%*	108 273	31	*61%*
B.Bung-Houana-	342	68 323	18	*53 %*	121 730	33	*57%*	222 703	54	*50%*
B.Bung-Houana-	215	50 934	12	*46 %*	76 567	20	*57%*	113 591	33	*62%*
B.Bung-Houana-Tai	732	156 485	38	*49 %*	256 036	70	*58%*	378 853	111	*63%*
B.Naxoy	461	87 779	24	*56 %*	150 882	43	*62%*	270 562	71	*56%*
B.Naphoktha	445	85 071	23	*55 %*	147 627	42	*61%*	263 555	69	*55%*
B.Dangtha	615	140 524	33	*47 %*	226 970	59	*55%*	332 584	94	*61%*
B.Naphok-Kao	560	102 018	29	*58 %*	213 229	54	*54%*	309 724	86	*59%*
B.Somsa-At	242	54 046	13	*47 %*	84 014	23	*59%*	139 535	37	*57%*
B.Gnangkham	1 406	253 342	73	*59 %*	424 053	132	*67%*	650 001	211	*71%*
B.Khouaxe	1 621	283 506	83	*61 %*	477 518	151	*69%*	736 722	243	*72%*
B.Nongbon	1 070	204 950	56	*55 %*	340 066	101	*64%*	515 172	161	*68%*
B.Hatkhamhiang	1 578	277 685	81	*60 %*	466 860	147	*69%*	719 180	236	*72%*
B.Som	574	103 593	29	*58 %*	216 354	55	*54%*	315 092	88	*59%*
B.Koktong	384	76 468	20	*53 %*	132 388	37	*59%*	196 340	58	*64%*
B.Sokbo	441	84 924	23	*55 %*	146 215	42	*61%*	261 866	68	*55%*
B.Khokkhimin	222	51 191	12	*46 %*	78 108	21	*57%*	115 480	33	*62%*
B.Vangduan	234	52 692	12	*46 %*	81 147	22	*58%*	136 007	36	*56%*
B.Khoksavang	336	68 102	18	*53 %*	120 232	32	*57%*	219 424	53	*50%*
B.Thap	658	146 344	35	*48 %*	237 672	63	*56%*	348 786	100	*62%*
B.Nonkate	381	76 358	20	*53 %*	131 019	36	*59%*	196 140	58	*64%*
B.Pongdeng	447	86 204	23	*55 %*	147 756	42	*61%*	263 755	69	*55%*
B.Khamteuy	376	76 174	20	*53 %*	130 761	36	*59%*	192 811	57	*63%*
B.Donsa-At	139	28 860	7	*51 %*	45 482	13	*63%*	83 374	22	*55%*
B.Thasida	296	62 392	16	*51 %*	96 472	28	*62%*	160 905	45	*60%*
B.Thamlay	501	93 489	26	*57 %*	161 454	47	*63%*	286 565	77	*57%*
B.Thakho	375	76 137	20	*53 %*	129 478	35	*58%*	192 761	57	*63%*
B.Kengpe	438	84 813	23	*55 %*	146 086	42	*61%*	260 226	67	*55%*
B.Kapha	375	76 137	20	*53 %*	129 478	35	*58%*	192 761	57	*63%*
B.Xe-Noy	726	156 264	38	*50 %*	254 495	69	*58%*	376 964	110	*63%*
B.Hatphek	239	53 936	13	*47 %*	82 645	22	*59%*	137 896	37	*56%*
B.Kasi	381	76 358	20	*53 %*	131 019	36	*59%*	196 140	58	*64%*
B.Veunsanan	276	59 536	15	*50 %*	91 806	26	*61%*	153 599	42	*59%*
B.Kokkengkhen	303	62 649	16	*51 %*	99 296	29	*62%*	164 334	46	*60%*
B.Nathan	717	154 873	38	*49 %*	251 585	68	*58%*	373 386	109	*63%*
		5 299 938		***54%***	**8 888 942**		***62%***	**13 854 058**		***64%***
KHAMMOUAN		**71 987 887**		***53%***	**119 940 647**		***61%***	**191 113 453**		***62%***