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SATISFACTION OF AES-SONEL/ENEO SUBSCRIBERS QUESTIONNAIRE

Interviewer's instructions manual

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INTRODUCTION

In front of the multiple telephone calls and claims received from electricity consumers, related to various inconveniencies caused by the public service of electricity, Electricity Sector regulatory Agency (ARSEL) has decided to organized since 2011 control surveys with subscribers of electricity services in Cameroon. The first edition of these surveys took place in 2011 and bore on a sample of 6 000 subscribers of the AES SONEL society. The second as for it, took place in 2012 and leant on a sample of 10 000 subscribers.

On the occasion of the realization of the Complementary Survey of the fourth Cameroon Household Survey (EC-ECAM 4), the ARSEL has contacted the National Institute of Statistics (NIS) in order that a section be grafted to the EC-ECAM 4 to help to control the state of commercial and technical relations between ENEO and its subscribers. As a matter of fact, the EC-ECAM 4 offer the opportunity to the ARSEL to get more robust indicators sine bearing on a sample of about 108 000 households at the national level.

As for any survey, its success relies on a good knowledge of the questionnaire and consequently, a good mastery of the interviewer's instructions manual. To that effect, all the interviewers and controllers are called upon to well read this manual during all the duration of the survey and to always refer to it in case of difficulty.

CHAPTER 1: PRESENTATION OF THE SURVEY

1.1 Objectives of the survey

The general objective is to control the state of the commercial and technical relations between ENEO and its subscribers. The results of this control will be opposable to ENEO and will constitute a data base for the regulator (ARSEL) who must use it in the framework of its missions (an input for the development of its acitivities).

More specifically, the ARSEL intends:

- to verify the realization of contractual obligations of ENEO in terms of pertinent dispositions of the Service Regulations, notably the quality of the tension;
- to evaluate the extent of the interruptions of the electricity energy supply in the various households and services;
- to evaluate the impact of delays in the demands of intervention on the level of satisfaction of electricity consumers;
- to verify if the discount of resources to consumers is effective;
- to promote a pilot programme of prepaid meters and intelligent meters through a sensitization ENEO subscribers;
- to sound out the perception of consumers on the employments of revisers of bills, of authorized fitters, of controllers of electrical installations and of effacement negotiator (for the case of enterprises);
- to verify that the new bills served to subscribers are bilingual and easy to read.

1.2 Expected results

At the end of this survey:

- ➤ the quality of the level of tension with subscribers is evaluated and known;
- the number of interruptions of electric energy supply, their extent and the delays of resumption of subscribers are surveyed;
- the impact of delays in the demands of intervention on the level of satisfaction of electricity consumers, notably the commerce and other services¹ is evaluated;
- the discount of resources to consumers as provided in the Service Regulation is attested:
- ➤ the perception of consumers about the employments of revisers of bills, authorized fitters, controllers of electric installations and negotiators of effacement is appreciated;
- ➤ the bilingual character and the reading facility of new electricity bills are confirmed;
- ➤ the feeling of consumers on the putting in place of a system of prepaid meter is appreciated.

¹ This survey appreciates the satisfaction only at the level of households. However, the satisfaction of the other consumers such as commerce and other services will be obtained through other surveys.

CHAPTER 2: FILLING OF THE QUESTIONNAIRE

This questionnaire is administered to households using as main mode of lighting the ENEO source of energy (codes 02 to 06 at the question S4Q37 of the household questionnaire). The interviewer must make sure that all the specific filters/skips to sections are respected during the administration of the questionnaire.

SECTION 1: IDENTIFICATION OF THE CONSUMER HOUSEHOLD

This section obtains information helping to identify and localize the household that consumes the electricity.

Questions **S1Q00**, **S1Q01**, **S1Q02** and **S1Q03** permit to identify the household to be interviewed. These variables correspond respectively to variables Q1, Q2, Q3 and Q4 of section 00 of the household questionnaire. Identify the answers affected to these variables in the household questionnaire and carry forward to questions **S1Q00**, **S1Q01**, **S1Q02** and **S1Q03** of the questionnaire « Satisfaction of AES-SONEL/ENEO subscribers».

S1Q04: Quarter/locality

Write in full and in a legible manner, the name of the quarter or of the locality where resides the household.

S1Q05: Nature of the customer

Write the code corresponding to the nature of the customer in the box reserved to that effect. BT single-phase = Single-phase Low Tension, corresponds to low tension lines made of two wires (one phase and one neuter). BT three-phase = Three-phase Low Tension corresponds to lines made of four wires (three phases and one neuter).



S1Q06: Type use of the electricity

Write the code corresponding to the category of use of the electricity. Modality 2 corresponds to the use of electricity at the same time for the domestic and professional needs. For example, a household that supplies its own enterprise situated not far from the lodging of the household.

S1Q07: Agence to which it is joined

Write litterally the agency to which the household is joined.

SECTION 2: BILLING

This section is addressed only to households that have an AES-SONEL/ENEO subscription (S4Q37 = 02 or 03 at the household questionnaire).

S2Q00 : Does AES-SONEL/ENEO respect the periodicity of the reading of the household meters?

It is here about knowing if the reading of meters is done at a well determined moment of the month and regularly. This periodicity can vary from one area to another. Ask the question and write the code corresponding to the interviewee's answer in the box.

S2Q01 : Does AES-SONEL/ENEO respect the periodicity of the handling of electricity consumption bills of the household?

It is here about knowing if the handling of bills is done at a well determined moment of the month and regularly. This periodicity can vary from one area to another. Ask the question and write the code corresponding to the interviewee's answer in the box.

S2Q02: Are the bills written in French and in English?

Ask the question and write the code corresponding to the interviewee's answer in the box.

S2Q03: Are the payment delays of ten (10) days respected after the handling of the bills by AES-SONEL/ENEO before proceeding to the eventual disconnection?

It is about the date line of payment written on the bill. It must be fixed at 10 days after the handling of the bill. Ask the question to the interviewee and write the code corresponding to his answer.

S2Q04: In average, how much did the household pay monthly during the past five months? (in CFA Francs).

Ask the interviewee if he/she has an AES-SONEL/ENEO bill of the most recent month of the year 2016, calculate his/her average consumption from the background posted on the bill; on the contrary case, rely on the declaration of the interviewee. Register the amount in CFAF. The interviewer must make the effort of transcribing the background on the back of the questionnaire in case it exists.

Write the code 999998 if the household does not yet receive bill

S2Q05: In average, how many kWh has the household consumed monthly during the past five months?

Ask the interviewee if he/she has an AES-SONEL/ENEO bill of the most recent month of the year 2016, calculate the number of kWh consumed averagely from the background posted on the bill; in the contrary case, rely on the declaration of the interviewee. Register the amount in CFAF. The interviewer must make the effort of transcribing the background on the back of the questionnaire in case it exists.

S2Q06: What is the main mode of payment of your bills?

Ask the interviewee the main mode of payment of his/her bills and write the corresponding code in the box. If the interviewee does not settle mainly his/her bills at the counter ($code \neq 1$), go to the next section.

S2Q07: How long does it take you (in minutes) averagely at the AES-SONEL/ENEO counter to pay your bills?

Ask the interviewee to give you an estimate of the time spent at the AES-SONEL/ENEO counter to settle the bill. Convert the result in minutes and put in the box while choking the

figures to the right. The counters referred to in this question are exclusively that of the AES-SONEL/ENEO. The evaluation is not made for the counters such as that of EXPRESS UNION and EXPRESS EXCHANGE.

SECTION 3: INTERRUPTIONS OF THE ELECTRIC ENERGY SUPPLY AND QUALITY OF SERVICE

This section is addressed only to households subscribed to AES-SONEL/ENEO (S4Q37 = 02 or 03 at the household questionnaire).

S3Q00: During the three past months, has AES-SONEL/ENEO systematically interrupted the electricity energy supply at a specific hour?

It is about interruptions announced in advance or interruptions that intervene at the precise moments of the day or precise day of the week. If the answer is 2 or 3, go to S03Q04.

S3Q01: During the three past months, how many times in average has AES-SONEL/ENEO interrupted the electrical energy supply?

Write the number of times of electric energy interruption per week. There can be several interruptions per day.

S3Q02: At which period of the year are these interruptions the most frequents? It is about for this question to specify at which season the AES-SONEL/ENEO power cut are the most frequent. In Cameroon, the raining spreads between the months of March and November. For the North and the Far-North regions, this period spreads between the months of June and October.

S3Q03: When there is interruption, light comes back after how long in average? It is about the duration between the interruption and return of the electric energy. Write in the box corresponding to the time unit and then, the duration. If the duration is inferior to 60 minutes, register in minutes. If it is inferior to 24 hours, register the duration in hours. If the duration is inferior to 7 days, register the duration in days and finally, if the duration is inferior to 4 weeks, register the duration in weeks. On the contrary, register the duration in months.

S3Q04: Do you succeed to light your lamps at any moment of the day (Incandescent bulbs, high efficiency halogenous bulb, compact fluo bulb, LED bulb)?

Ask the question and register 1 for Yes and 2 for No. If the answer is yes, go to the next section.

S3Q05: If no, how many days per week?

Write the number of days per week during which the interviewee declares not succeeding to light his/her lamps at any moment of the day.

SECTION 4 : RENEWABLE ENERGIES

S4Q00: Apart from AES-SONEL/ENEO, do you have other sources of electrical energy?

This question permits to grasp the other sources of electrical energy (generating set, solar energy, etc.). If the subscriber declares not to use other sources of electrical energy, go to question S4Q02.



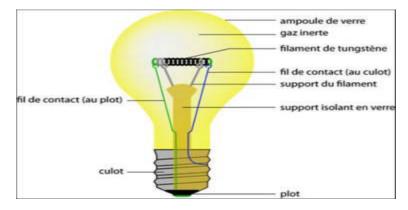
- to optimize the consumption of electric energy in the households;
- to have enough energy in order to increase the offer of the electric energy for several households;
- to reduce the electric energy expenses in the households.

S5Q00: Which type of lamps do you mainly use?

Following the recent technological developments, there are four types of lamps¹.

1. The incandescent bulb

The incandescent bulb was invented in 1878 by Thomas Edison. But, this technology that is more than one century old seems superseded today, since not economic and greedy in energy. 95% of the energy that it consumes is transformed into heat, so the temperature of the bulb can raise up to 150°C. The remaining energy (5%) is converted into light.



2. The high efficiency halogenous bulb

In terms of luminosity, the halogenous bulb is at 20 to 30% more efficient than an incandescent bulb and permits economies of energy of 30 to 50%. It luminosity (close to that of the sun) is well adapted for the reading or meticulous works. But for this technology too, 93% of the energy consumed is transformed into heat and, in the use, its cost is very high.

¹ http://controversies.sciences-po.fr/archives/bulbs/index.php/to-start/the-different-types-of-lamps.





3. Fluo compact bulb

The fluo compact, or fluorescent compact lamp (LFC), is an alternative to traditional bulbs. It has a luminous efficiency important enough. The fluorescent compact lamps have been produced in 1974. The fluo compact technologies use the same technology of the fluorescent tube folded on itself but they exist in different models and in cool or hot tint.



4. The LED lamps

An electroluminescent Diode (DEL), commonly called also LED (from the english: Light Emitting Diode), is an electronic component transforming the electricity into light.

Their great forces are due to the fact that the LED permit to produce the light with a very mall tension (few volts) with a good light/energy output. Thus, they almost not heat and have a very long life expectancy. They permit the replacement of incandescent lamp of 40 W and less.

Created in 1962, the LED have remain for a long time stationed to the use as luminous light, typically, on the electronic apparatus, a lighted LED indicates that the apparatus is under tension. Today the technologic progress permits to envisage the use of LED as luminous source. The main advantage of the LED is their exceptional life expectancy (100 000 hours), with a very high number work/stop cycles.



Ask the question and present the samples of image to the interviewee and register the code corresponding to his/her answer.

5. The fluorescent tubes



S5Q01: To reduce your consumptions of energy, do you envisage to replace your present lamps with more economical ones?

Write the code corresponding to the answer. The modality 3 « Not concerned » concerns the households that already have the most economic bulbs.

S5Q02: Apart from fridges and freezers, do you disconnect systematically all the other apparatus when you are not using them?

Write the code corresponding to the answer.

S5Q03: Do you put off your bulbs in the non occupied spaces of your lodging?

Ask the question and write the answer of the interviewee in the box. A space is said non-occupied at a moment if nobody is present there at that moment. If for example I leave my room in order to watch the news in the parlour, and that no other person is in the room, it is therefore considered as non-occupied.

SECTION 6: ELECTRONIC MEANS OF PAYMENT OF BILLS AND PREPAYEMENT METERS

This section is interested with the satisfaction of subscribers relatively to the different electronic means of payment of bills as well as their knowledge on the prepayment system of bills and of intelligent meters.

S6Q00: What is your level of satisfaction of the present system of payment that consists in payment after the consumption of electricity?

This question helps to appreciate the level of satisfaction of the household vis à vis of the present system of payment of bills after the consumption. Ask the question and write the code corresponding to the interviewee's answer.

S6Q01: Have you already resorted to electronic means of payment of bills?

The electronic means of payment of bills are those for which the payments are done either with the bank card, either through a financial mobile service (Orange money, MTN mobile money, Express union mobile).

Once the question asked, if the interviewee is hesitant, kindly explain with examples, the electronic means of payment. If need be, refer to the person who use to pay the electricity bills of the household if he/she is available. The modality DK must be used as the last resort. **NB**: the payments of bills in the Express union and Express exchange counters are not considered as electronic means of payment.

Ask the question and register the code corresponding to the answer of the interviewee.

S6Q02: What is your level of satisfaction of it?

The aim of this question is to measure the level of satisfaction of the household that uses the electronic means of payment of electricity bills.

Ask the question and register the code corresponding to the answer of the interviewee.

S6Q03: If not at all satisfied, not satisfied or indifferent, why?

This question is asked only to households that are not at all satisfied of the use of electric means of payment of bills. The interviewer must read each modality and invite the interviewee to answer yes or no. Always take the pain to ask if there are other reasons and in case of need specify the said reason.

S6Q04: Would you like to monitor and control your electricity consumption real time?

Ask the question and register the code corresponding to the interviewee's answer.

S6Q05: Have you already heard of prepaid system and intelligent meters for electricity bills?

This question is interested to the knowledge or not by the households of the prepayment system and intelligent meters. The prepayment system consists to the use of the quantity of the energy paid in advance. This system functions exactly like the recharging credit cards of communication. It has the advantage that the subscriber will consume only the quantity he/she would have went.

Ask the question to the interviewee and note his/her answer in the box.

S6Q06: Would you be ready to pass to this mode of payment of electricity consumption?

After having explained the prepayment system to the interviewee, ask him/her if he/she is ready to settle his/her electricity bills with this mode of payment and note his/her answer in the box.

SECTION 7: ARSEL VISIBILITY

This section is interested at the evaluation of the visibility of the ARSEL on knowledge of the structure point of view, of the document of Public Distribution of electricity Service Regulation of contractual terms and of its tools of communication with ARSEL.

S7Q00: Have you already heard of the Electricity Sector Regulating Agency (ARSEL)?

Ask the question and register the code corresponding to the interviewee's answer. You might be called upon to make a brief presentation of the ARSEL.

Box: Brief presentation of ARSEL

The ARSEL was instituted by the law $N^{\circ}98/022$ of the 24th December 1998, governing the sector of electricity. This law was modified and completed by the law N° 2011/022 of the 14th December 2011 that consecrates the liberalization of the electricity sector in Cameroon. It has the status of public administrative establishment at the meaning of the law $N^{\circ}99/016$ of 22nd December 1999 bearing the general status of public establishments and enterprises of the public and parapublic sector.

The missions of the ARSEL

The ARSEL insures the regulation, the control and the follow up of the activities of exploiters and operators of the electricity sector, in the framework of the policy defined by the Government. It is particularly charged:

- to participate to the promotion of the rational development of the offer of the electric energy;
- to watch over the economic and financial equilibrium of the electricity sector and the preservation of the necessary economic conditions to its viability;
- to watch over the interests of the consumers and to insure the protection of their rights as far as the price, the supply and the quality of the electric energy are concerned;
- to promote the competition and the participation of the private sector in the domain of production, of transportation, of the distribution, of importation and of exportation and of sale of the electric energy, within objective transparent and non discriminatory conditions;
- to shelter the litigations between operators or between operators and consumers...

S7Q01: Do you know the Electricity Public Distribution Regulation of Service?

The Electricity Public Distribution Regulation of Service is a document that governs the relations between AES-SONEL/ENEO and all the users of the electric energy while specifying the rights and obligations of each party. Ask the question and register the code corresponding to the interviewee's answer.

S7Q02: Do you know the call center (centre d'appel) of the ARSEL?

Write the code corresponding to the interviewee's answer.

S7Q03: Do you know the conciliation commission of the ARSEL?

The conciliation commission is a commission that examines the complains of AES-SONEL/ENEO consumers while playing the role of regulator.

Ask the question and register the code corresponding to the interviewee's answer.

SECTION 8: RESORT TO AES-SONEL/ENEO IN CASE OF PROBLEMS

This section is addressed only to the households subscribed to AES-SONEL/ENEO (S4Q37= 02 or 03 in the household questionnaire). It permits to evaluate the extent of the litigation between AES-SONEL/ENEO and the households and the motives of the litigation.

S8Q00: Have you already had a litigation with AES-SONEL/ENEO?

It is about here of litigious affairs that have opposed the subscriber to the AES-SONEL/ENEO society in its activity of electric energy supply. If the subscriber declares having already had several litigations, refer to the last case. If the answer is no, go to S8Q03.

S8Q01: What was the main cause of the litigation?

Register in the box the code corresponding to the main cause of the litigation. If the interviewee gives you a modality different from those cited in the questionnaire, specify legibly his/her answer in the space reserved for it. The modality « abusive interruption of electricity » takes into account the unjustified cuts of current related to the non-payment of electricity bills, deterioration of household electrical appliances following these power cuts, etc.

S8Q02: What is /was the state of execution of the resolutions taken after the litigation?

Ask the question and register in the box the code corresponding to the main resolution of the litigation.

S8Q03: When AES-SONEL/ENEO is contacted for an intervention, the teams in general come after how long?

Idem at S3Q03.

S8Q04: Has it happened to the household to resort to somebody else for an intervention of the competence of AES-SONEL/ENEO?

It is about knowing if the interviewee resorts to the services of persons not working with AES-SONEL/ENEO to solve problems of the competence of AES-SONEL/ENEO. Ask the question and register the code corresponding the interviewee's answer. If 2, go to the next section.

S8Q05: If yes, why?

For this question, it is about the main reason. Ask the question and register the code corresponding the interviewee's answer. If the interviewee refers to a reason different from those mentioned, ask him/her the precisions in relation to the said reason and note it in the space provided to that effect.

SECTION 9: PERCEPTION ON THE EMPLOYMENTS OF THE REVISERS OF BILLS, AUTHORIZED FITTERS, CONTROLLERS OF INTERNAL ELECTRICAL INSTALLATIONS

This section takes down the perception of subscribers on the employments of revisers of bills, authorised fitters, of controllers of installations and of negotiators of effacement. It includes three questions: **S9Q00 to S9Q02**. For each of these questions, the interviewee is called upon to give his/her appreciation. Register the interviewee's answer in the box reserved to that effect. We understand by:

Reviser of bills: Person that can read well an electricity bill and who can detect error of billing to assist the subscriber in the writing of his/her claim with AES-SONEL/ENEO.

Authorized fitter: Physical or moral person having a training of electrician and capable of being certified by a state organism or by the ministry in charge of the electricity to realize the electric installations in the households, the services and the industries.

Controller of installations: Physical person having a training of electrician who must control the good execution of electric installations following the required norms.

SECTION 10: OTHER INFORMATION

This section wants through the observation and interview questions the frauds operated in the electric energy supply. The questions S10Q00 to S10Q03 depend on the observation of the interviewer and must not be asked to the interviewee. To that effect, the interviewer must have necessary knowledges to bring good answers to these questions.

On the other hand, the questions S10Q04 to S10Q07 must be asked. Simply register the interviewee's answer in the box reserved to that effect.