

Accounts Receivable Management in Power Supply Enterprises based on Customer Segmentation

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Abstract: Nowadays in China, the accounts receivable management work in power supply enterprise is facing tough situation with deep-seated reasons. Electric power marketing work should focus on different needs of different customers. The customer segmentation theory has its vital reference for the receivable management in power supply enterprises. By elaborating customer segmentation theory with some cases, we divide enterprises customers into proper groups, proposing targeted strategies of receivable management for customers with different characteristics.

Keywords: Customer segmentation; accounts receivable management; credit rating

I. Introduction

Currently, there's a big flaw in the accounts receivable management work of electric power supply enterprises. Tariff revenue is still the major source of funding to maintain the power production and development in these enterprises. However, huge arrears bring the company great business risks which dose a serious damage to the cash flow, safe operation and power supply in the power grid, or even affect stability and development of the whole society.

Against the fierce situation of tariff recovery currently, many power supply companies have unveiled some measures to solve the electricity charge problems that puzzled the companies. These solutions including: a blackout urgent recall according to law, tariff recovery combined with power project management, support from the government, workers' revenue linking to the tariff recovery, promotion of the use of IC card power meter, strict implementation of the penalty system and so on. With the implementation of these countermeasures, it not only eased the pressure of tariff recovery to some extent, but also showed some effect in clearing up old arrears. But due to the difficulties of electric power charge work, serious situation of electricity arrears has not been fundamentally improved. Because these current means all has its fatal flaws and shortcomings. Such as the blackout urgent recall, not only blackout itself is a hit to business sales, but also it should ensure social stability to maintain the power supply. What's more, promotion of the use of IC card power meter can reduce risks for residential electricity or commercial electricity. But to some large commercial and industrial electricity or large electricity units, pre-paid system may

seriously damage their cash flow. So it basically does not work. Therefore, how to formulate a set of ideal accounts receivable management strategies in this case is imminent to our power supply companies.

In my opinion, customer segmentation theory can be applied to accounts receivable management work of the power supply companies. According to different characteristics and difficulties of the electricity customers, we develop series of policies and strategies to promote and guarantee the recovery of electricity charges.

II. Customer Segmentation Theory

The concept of customer segmentation theory

The modern marketing concept of customer segmentation was put forward by an American market scientist named Wendell R •Smith in the mid 50s during the 20th century. It pointed out that companies would divide a large customer group into several sub-groups of customers according to different customer attributes. Also it should make the differences between sub-groups of customers as large as possible and differences within each sub-group as small as possible. Then they should determine the target sub-group on this basis and offer pertinent services and products.

Customer segmentation applicable to power supply enterprises

It has been nearly 60 years' development and practice since the customer segmentation theory was proposed. And the theory has already been used in many industries, reflecting its superiority. Power is a commodity, so power supply enterprises can find some proper segmentation variables to get the feasible customer segmentation programs by learning from other successful segmentation methods in combination with the company's own operating characteristics. Commonly used segmentation variables are: ① power regions, ② industries (industries), ③ category of electricity customers in classification tariff, ④ client scale, ⑤ customer demand, ⑦ customer credit degree and so on.

The author believes that companies can choose segmentation variables such as customer scale, classification tariff and credit degree to subdivide customer groups from coarse-to-fine segmentation, using series of variable factors method, according to the actual conditions of the power supply companies, as is illustrated in the Figure 1 blow:

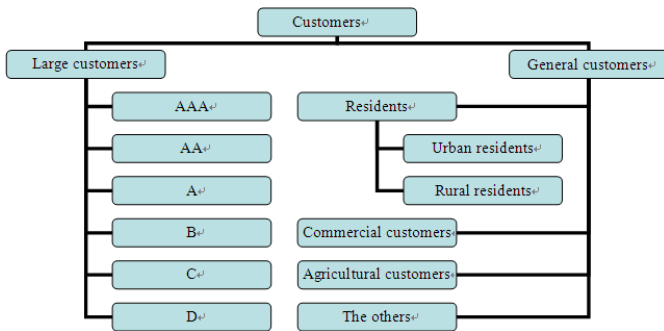


Figure 1 customer segmentation groups in power supply enterprises

Among them, large customers are divided by credit degree. Customer accounts receivable credit rating indicators mainly include: ① tariff recovery rate of the present year; ② reimbursement rates of the arrears; ③ promised missing report ratio; ④ bank credit rating; ⑤ quality of the corporate leaders. Specific classification methods are as follows (Table 1):

Table 1 customer Credit Index Calculation

Serial number	Index item	Calculation formula	Standard score	Evaluation value	Grading standard
1	tariff recovery rate of the present year	Received tariff of the present year ÷ receivable accounts of the present year	75	100%	score = (actual index value / evaluation value of the index) × Standard score
2	reimbursement rates of the arrears	paid tariff arrears of the present year ÷ the total electricity tariff arrears	5	20%	
3	Commitment missing report ratio	Cash amount ÷ commitment amount	5	100%	
4	bank credit rating	Scoring according to the level	10	AAA	10 points
				AA	8 points
				A	6 points
				B	4 points
				C	2 points
5	quality of the corporate leaders	Enterprise product structure, industrial policy, market share, market prospects, credit concept of the corporate leaders, corporate culture and so on	5	good	5 points
				better	3 points
				fair	1 points
				poor	0 points

Implement centesimal grade to evaluate electricity accounts receivable credit rating. And it should be classified into six grades according to their scores:

AAA-class customers: the electricity accounts receivable credit rating score is from 90 points to 100 points, leading its dominant position in the market. They have a stable financial position, adequate cash amount, good prospects for development, strong capacity to pay the electricity bills, a good reputation of the company and also no arrears continuously for more than one year.

AA-class customers: the electricity accounts receivable credit rating score is from 80 points to 90 points, leading its dominant position in the market. They also enjoy a stable financial position, strong ability to pay electricity charge, good prospects, a good reputation and a return-to-zero of the current electricity charge as well as the repayment plan to clear up arrears.

A-class customers: the electricity accounts receivable credit rating score is from 70 points to 80 points, leading a relatively advantageous position in the market. They enjoy strong financial position, strong electricity capacity, good reputation, and a return-to-zero of the current electricity charge.

B-class customers: the electricity accounts receivable credit rating score is from 60 points to 70 points. They're in the middle position in the market, enjoy general financial situation which already has a deterioration trend, general

prospects for development, general capacity to pay electricity charge and general customer reputation.

C-class customers: the electricity accounts receivable credit rating score is from 50 points to 60 points. They're at a disadvantage in the market, poor financial situation, poor development prospects, weak capacity to pay electricity bills and poor customer reputation.

D-class customers: the electricity accounts receivable credit rating score is below 50 points. They're at a disadvantage in the market, poor financial situation, poor development prospects, very weak capacity to pay electricity bills and very poor customer reputation.

III. Accounts receivable management strategies for different customer groups

Accounts receivable management strategies for heavy buyers

To promote big clients to pay electricity charge spontaneously, the electricity sector should implement classified management toward customers of different credit ratings. Different level customers should enjoy the corresponding preferential quality service policies. Specific measures are as follows:

AAA-class credit customers: ① If there is a temporary arrears, we should help to coordinate all aspects of their

relationship in order to promote electricity charge recovery. When clients face serious economic difficulties in a certain period of time thus can not pay on time, the power companies could extend the time limit, or accept installment payment; ② Given priority to the electricity business for start-up, name-change and transfer; ③ Given priority to maintenance, repair and other services; ④ Enjoy the preferential policy of power supply, given the appropriate discount and rebate; ⑤ Enjoy priority of power supply during power shortage. And ensure power supply to avoid power cuts; ⑥ Given priority to understand the electricity supply demand and supply. Monthly electricity consumption and electricity billing inventory would be delivered by regional service manager in person and in writing of notes; ⑦ Be rewarded by the media.

AA-class credit customers: ① If there is a temporary arrear, we should help to coordinate all aspects of their relationship in order to promote electricity bill recovery; ② Given priority to the electricity business and given corresponding remission according to policy; ③ Enjoy electrovalence discount, but less than AAA-class credit customers; ④ Given priority to maintenance, repair and other services; ⑤ Enjoy priority of power supply during power shortage; ⑥ Maintain post-pay means without installing and using power-purchasing facilities to show full trust.

The above two types of customers should enjoy preferential policies on power supply, operation, safety, information, energy-saving and so on. One customer representative should be with each major customer to keep 24-hour link.

A-class credit customers: ① Given priority to the electricity business; ② Do not enjoy power priority and discount due to the emergency of new electricity tariff concessions; ③ In the premise of safety assurance, cut-off and rationing is acceptable to urge electricity bills; ④ Electricity rationing is acceptable during power shortage.

B-class credit customers: ① Cut-off and rationing is acceptable to urge electricity bills; ② Track his turnover of capital, and take measures to control the debt increasing monthly; ③ Implement sub-second billing and first buy later.

C-class risk customers: ① Cut-off and rationing is acceptable to urge electricity bills; ② Installation of electrical facilities to achieve "first buy later" settlement method; ③ Do not enjoy preferential policy; ④ Check financial reconciliations regularly and notarize arrears.

D-class risk customers: ① When necessary, use legal measures such as Electric Power Law to recover debts besides cut-off and rationing for it's a reasonable way to use our legal rights; ② Installation of electrical facilities to achieve "first buy later" settlement method; ③ Do not enjoy preferential policy; ④ Check financial reconciliations regularly and notarize arrears; ⑤ Track his running condition, and reinforce measures to control the debt increasing by month; ⑥ Use multimedia to exposure in an open way, resulting in public pressure; ⑦ Adopt the running model of electricity debt-to-equity swap.

Accounts receivable management strategies for general customers

In my view, though large customers take great proportion in electricity sales or accounts receivable that power supply enterprises should pay attention to, general customers also take some importance in the management of accounts receivable that cannot be ignored.

1. Residential customers

There still existing some differences in formulating the strategies as urban and rural residents' living habits and consumption levels are quite different.

(1) Urban residents

Electricity accounts receivable management accounting work of the urban residents is of great complexity. So I think we can start from the following areas to do an effective work.

① Continue to promote a renovation project of one household one electric meter positively.

In the renovation project of the power grid in both urban and rural areas, each electricity grid companies should implement one household one electric meter renovation to old users, as well as design and install one household one electric meter to all new added users. But due to the limited funds for renovation, many transformation can not be fully completed, especially the residential areas in old cities and towns. Thus it requires the power company to conduct a continuous publicity of the renovation, letting old electric users have a deep understanding of its advantages and cooperate with the companies' renovation actively.

② Enhance the propaganda and let the concept of "electricity is commodity" enjoy a popular support.

Make full use of promotional tools such as electricity promote cars, buses, light box advertising and so on to widely publicize the rights and obligations required by "Electric Power Law Of The People's Republic of China" of both electricity users and the electricity supply companies, as well as the corresponding regulations of electricity charge recovery in electricity power sectors. Intensify the concept of "electricity is commodity" through radio, television, newspapers and other media, to make laws, regulations and management system of electricity charge recovery widely known. Propaganda electricity charge recovery policies by holding the user forums, setting up propaganda spots in these areas, only to raise users' awareness to pay on time and consciously.

③ Organize "high quality service month" activities to fix the difficult electricity problems of residential customers.

④ Do a good "window" building job to create a good environment for the electricity charge recovery.

Business hall is a window to do electricity charge recovery work and offer high-quality service. In order to construct this window, they should beautify and purify the business environment, perfect service facilities, standardize and publicize electricity charge and so on. They should try their best efforts to create a comfortable environment of payment.

⑤ Implement bank-electricity marriage to make payment convenient to customers.

Power supply enterprises should explore flexible electricity payment mode positively. For bank-electricity marriage is a good cooperation way which aims at improving the situation of less windows for more residential customers and difficulties in the payment work. Power supply enterprises can entrust bank collection of electricity charges, payment of electricity charges, telephone payment, mobile payment, electricity savings, online banking payments, bank transfer, and also allow the installation of CUP POS machines in electricity supply business hall. Above all, this can maximize the convenience for residential customers and avoid the occurrence of electricity accounts receivable effectively.

(2) Rural residents

In China, there's a large population in rural areas. With the improvement of living standard and the popularization of household electrical appliances in rural areas, rural electricity consumption increased year by year and has a huge potential. What's more, the "three agriculture" problems are global, strategic and fundamental issues, so power supply companies must do a good job in rural electricity accounts receivable management.

① Enhance the transparency of tariff recovery.

Promote "three publicities" (that is, consumption publicity, electricity price publicity, tariff publicity) regulation in rural areas. Publish electricity price, tariffs and power consumption per household per month on the columns of business hall and village affairs. This approach can effectively eliminate occurrences of some grey transactions. Accepting supervision by the masses actively in the charging process can lead a better understanding of power supply enterprises for rural customers, which makes rural customers take the initiative to pay electricity bills. And it can as well effectively reduce the incidence of arrears.

② Improve electricity consumption publicity.

Power supply companies can carry out the campaign named "it's a right to consume electricity and a duty to pay" through blackboard newspaper, stenciled signs, hanging banners, television publicity and other means, then make it frequent and systematic. Meanwhile, they should also add some contents of paying electricity bills consciously in the "safe use of electricity guide" to instill comprehensive and multi-angle consciousness into rural customers.

③ Door to door charging combined with the regular fixed charge.

Power supply companies should stick to traditional way of home electricity charges service for some villages with a centralized number of customers. The cashiers should make the service time flexible, and try to avoid the busy farming season. At the same time, they can regularize the charging time and place. For rural users who forgot to pay the bills, enterprise staff can inform them through speakers, which is also a good opportunity to promote the common sense of electric regulation, electricity charge recovery policy and

electric safety knowledge. If customers ask questions, we must answer patiently and carefully. Only in this way and only to insist it, can rural users develop a conscious habit to pay the bills monthly.

④ Consolidate rural electrician force to improve high quality service.

Strengthen the personnel to set up specialized and standardized rural power service team. Solve problems in first time when fault occurs during power use time. Make problem-solving immediate and sufficient. All these can be done to change the previous distrust situation between electricians and rural users. Establishing a good image in rural areas can increase the initiative for rural customers to pay timely, to a certain extent.

2. Commercial customers

Commercial electricity price is the highest price in classification. It has a steady yearly growth in electricity consumption, showing its certain potential. Power supply companies can adopt the following strategies to manage the accounts receivable work:

(1) Enhance the propaganda

Fierce competition among commercial enterprises makes it essential for them to attach great importance to social evaluation. Thus the electric power supply companies can take advantage of this, forcing commercial users to pay electricity bills consciously under public pressure. For example, they can commend commercial users of good credit and circulate a notice for those who owe electricity charges deliberately.

(2) Measures for rental households and commercial façade.

With the development of market economy, a large number of rental and individual business households have appeared. Because of the unstable operating conditions, there often existing empty and closed households as well as circumstances of payment refusal and deficiency due to unclear economic responsibilities between homeowners and renters, former renters and hinders. This really brings a great difficulty in electricity charge recovery. In view of this, measures can be taken as follows: ① the promotion of low-voltage magnetic card table. Let them purchase before use; ② strengthen communication between streets residents committee, police stations and other departments. Try efforts to get in touch with the owners, keep a close eye on power users' situation and seize the opportunity to reclaim; ③ keep abreast of changes in rental households and facades. Require the settlement of electricity for leavers, and propaganda "electricity is commodity" to new comers, requiring them to pay timely as well.

3. Agricultural customers

Now China is constructing the new socialist countryside to support agricultural development vigorously, making agricultural electricity market of great potential. Therefore, the power supply enterprise should unveil the appropriate strategy for agriculture promptly.

(1) Seize the opportunity, and develop the market with preferential policies.

With the strengthening of publicity and the gradual changes of peasant consciousness in recent years, the peasants plan to transform the oil processing industry to the electric powered, change manual workshop into the electric power ones and replace diesel engine with the electric powered for irrigation and drainage. But due to the lack of funds, it results in a delay for the implementation. In response, the rural electricity supply companies may unveil preferential policies to improve the situation. That is to give new users the price of 15% below market rates to provide the necessary equipment and materials that power required. And the design, inspection and acceptance are all for free. After powered, companies should send professionals to offer technical guidance, high quality service and tangible benefits to users. One the one hand, this can mobilize the peasants initiative. On the other hand, it can also play a certain role in electricity charges recovery.

(2) Promote gradually disposable and installment electricity payment.

Power marketing companies can carry out disposable and installment electricity payment under the poor conditions of "purchasing first before use" in rural areas. So they can lead customers to select this method themselves with reasonable preferential tariffs policies.

(3) Strengthen communication with local government.

During the period of vigorous development in agricultural production of China, some county governments make administrative intervention to companies when electricity arrears appear, for the purpose of protecting township enterprises. Power supply enterprises shall report to the local government regularly and participate in various activities of their organizations actively, so as to get their support and help to promote the recovery of electricity charges of township enterprises.

4. Other customers

All the customers should be classified into other customers including government agencies, the army, schools, medical institutions, public lighting and so on, except for large customers, residential customers, commercial customers and agricultural customers. For these customers, power supply enterprises should base mainly on publicity to build a good relationship with government, promote pre-paid tariff plan, and offer high quality service to do the accounts receivable recovery management work with best efforts.

IV. Concluding remarks

Power supply companies can apply this customer segmentation concept to accounts receivable management work. Establish different strategies for different electricity customers to strengthen accounts receivable management with omni directional and multi-angle views. Of course, the specific strategies should be based on specific situations in the environment and adjusted accordingly to the changes.

Accounts receivable management based on customer segmentation theory attempted in this article, is an approach for the accounts receivable recovery in power supply enterprise which faces a current critical situation. Due to the limited capacity of the author, there may be many inevitable superficialities and inadequacies in this article. The author really expects further exploration and research during the future study and work.

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