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ASSISTANCE IN COMPUTERIZING THE ACCOUNTS RECEIVABLE SYSTEM CAPABILITIES AT LITHUANIAN POWER COMPANY

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1. Overview

Lithuanian Power Company (LPC) has recently completed the design of their Oracle based accounts receivable system As a tool to assist in the evolution of this system, this reference for computerizing the accounts receivable system capabilities has been prepared

Contained are descriptions of system capabilities common to most accounts receivable systems These capabilities are organized into five major categories of benefit to LPC

- o Improve Financial Performance
- o Comply with Western Accounting Standards
- o Reduce Costs
- o Improve Service to Customers
- o Streamline Operations
- o Improve Company Image

Each capability has been included in the category which represents its greatest benefit to LPC In addition, areas where other benefits exist are also identified and numbered from greatest benefit 1, secondary benefit 2, etc A matrix is provided as a summary

As LPC seeks to improve areas of their operations such as improving financial performance, improving service to customers or reducing costs, this matrix and descriptions can serve as a guide to help LPC management identify capabilities which may be desirable additions to their Oracle system

CAPABILITY MATRIX

Capability	Area of Operational Improvement					
	Improve Financial Performance	Comply with Western Accounting Standards	Reduce Costs	Improve Service To Customers	Streamline Operations	Improve Company Image
Improve Financial Performance						
Computer generated follow-up notices	1	-	2	4	3	-
Major customer early follow-up	1	-	2	-	-	-
Former account follow-up	1	-	2	-	3	-
Collection agency referrals	1	-	2	-	-	-
Re-establishment of credit reporting	1	-	2	-	3	-
New commercial account reporting	1	-	2	-	3	-
Computerized theft analysis	1	-	2	-	3	-
Zero usage reporting	1	-	-	-	2	-
Name match index	1	-	2	-	3	-
Comply with Western Accounting Standards						
Recording/reporting of aged receivables	-	1	-	-	-	-
Calculation & reporting of days sales outstanding	-	1	-	-	2	-
Calculate provision for bad debts	2	1	-	-	3	-
Production of period-end financial-mgmt info	-	1	-	-	2	-
Posting of Payments	-	1	2	-	-	-
Reduce Costs						
Automatic transfer of unpaid receivables	2	-	1	-	3	-
Levelized payment plan	3	-	1	2	-	4
Predictive dialing systems linkage	2	-	1	-	3	-
Computer produced field disconnect orders	-	-	1	-	2	-
Voice response unit linkage	-	-	1	2	3	4
Improve Service To Customers						
Planned shutdown notification	-	-	-	1	2	3
Transformer loading	-	-	2	1	3	-
Summary billing	-	-	-	1	-	2
Early outage area recognition	-	-	-	1	2	3
Streamline Operations						
Payment arrangement history	3	-	2	-	1	-
Collection history	2	-	3	-	1	-
Broken seal history	3	-	2	-	1	-
Workload management cycle/system	3	-	2	-	1	-
Improve Company Image						
Third party notification program	-	-	-	2	-	1

3. Improve Financial Performance

Computer Generated Follow-Up Notices

The establishment of a pre-defined collection follow-up cycle and the automatic computer generation of credit follow-up notices are essential elements in an affective collection follow-up system for both existing and former customers

For existing customers these notices should be generated when the bill becomes past due and should inform customers of at least the following

- o total amount due
- o total amount past due
- o total amount required to be paid to avoid discontinuance of service
- o location where payment can be made
- o latest date payment can be made to avoid discontinuance of service
- o contact phone number or location where arrangements can be made due to hardship or the notice can be disputed

For former customers, these notices should be generated at a fixed point in time, number of days, after the customer has stopped receiving utility service if the final bill for utility service has not been paid in full This notice should inform customer of at least the following

- o that this is a demand for payment
- o total amount due
- o location where payment can be made
- o latest date payment can be made before further action takes place
- o action which will take place if payment is not received
- o contact phone number or location where arrangements can be made due to hardship or the notice can be disputed

The credit follow-up cycle should be triggered by the system in order to manage the follow-up process from the time the account is identified as past-due and continuing through all subsequent established steps including field collections, discontinuance of service and/or legal action

Major Customer Early Follow-Up

For LPC's largest revenue customers, regardless of the risk of loss they represent, prompt follow-up for collection of these revenues should be made For these large customers local operations should be informed of those specific customers who have not paid their bills in full

approximately one week before the issuance of the subsequent month's bill These customers should be contacted at pre-defined contact locations in an attempt to encourage prompt payment If this is done, LPC will be able to effectively manage its cash flow

Former Account Follow-up Processing

For former customers accounts a fixed follow-up cycle should be established which provides for a rigid process for collecting these former customers receivables from the time they stop receiving utility service until they are considered by LPC as an uncollectable item

An example of such a process and the steps that take place could be

Utility service stopped	final bill issued
One month later (+1)	demand notice automatically issued
One additional month later (+2)	additional demand notice issued for larger amounts
One additional month later (+3)	clerical attempts to locate former customer begins The extent of the clerical collection effort depends on the amount of the bill and the extent of information known about the former customer
One additional month later (+4)	outside collection assistance (i e collection agency, attorney, etc) is obtained, if available, depending on the amount of the bill
Two additional months later (+6)	unpaid amount of former customers bill is declared uncollectable for accounting purposes

Collection Agency Referral

As described in the previous capability Former Account Follow-up Processing, unpaid former customer accounts can automatically be referred/assigned to an outside collection agency as these services become available in the country The collection agency would perform collection functions for a agreed upon percent of the amount collected

Re-establishment of Credit Reporting

Industrial, commercial and agricultural customers who represent an unreasonable risk of lost revenue to LPC due to the customer's regular slow payment habits, the necessity to discontinue their utility service, or their deteriorating financial situation, should be required to reestablish their credit with LPC This can be accomplished by posting a cash deposit or providing other instrument which will protect LPC against future risk of loss

Customers who fall into the established categories requiring credit re-establishment can easily be pin-pointed by the computer system and flagged for processing by local LPC operations As an alternative, the computer system can automatically send letters of notification to these customers informing them to improve their payment habits within an established timeline or face re-establishment of credit

New Commercial Account Reporting

As new industrial, commercial and agricultural accounts are established it can be an effective control that these new accounts are reviewed by a remote staff organization or by local management to ensure that proper procedures for establishing these key accounts have been followed

Examples of items which can be reviewed in this manner can include name format for proper identification of business organization type, presence of estimate of maximum monthly revenue, bank references, utility service supply, business classification codes, hours of operation, presence of account security, correct meter constraints, etc

As discrepancies in the proper establishment of these accounts are identified local LPC operations can be notified to take corrective action

Computerized Theft Analysis

Through the availability and use of selected information about customer's energy consumption and their business characteristics, relationships exist and computer calculations can be made which can identify potential theft leads Such relationships exist between a businesses operating hours, its electrical demand and its kWh consumption

By having the proper information available, and the calculations performed, considerable time can be saved, and revenue saved, by quickly identifying energy thieves

Zero Usage to Reporting

Occasionally utility meters do not register customers consumption due damage or other malfunctions, hence their energy usage is zero Most likely these conditions, if identified in the field by LPC personnel, are corrected as soon as possible Because of the potential for large unbilled revenue, particularly for industrial and large commercial customers, when damages or other malfunctions exists, these accounts should be pin-pointed by the computer and brought to the attention of a remote staff organization or local management to ensure prompt corrective action is taken so that accurate energy consumption can be measured and billed

Name Match Index

Use of the customers name in computer files can be an especially useful tool in tracking down transient customers who have unpaid utility bills Computer matching of outgoing customers names with incoming customers names can provide good collection leads which can be further related by other computer information such as date of ending service for former customer compared against date of starting service for new customer, proximity of move, people generally tend to not move long distances, a comparison of occupation, a comparison of personal identifier, etc

4. Compliance With Western Accounting Standards

Recording/ Reporting of Aged Receivables

Receivables for all customers should be recorded and reported according to their relative age from the time the consumption was measured and "booked" as a receivable The capability should assist for the age of receivables to be measured in categories such as "less than 30 days", "60-90 days", etc so that LPC can readily determine and utilize for internal and external purposes the correct status of collection of their receivables and the presence of positive progress or deterioration of their collection efforts These reports on aging could be utilized by LPC management to determine the provision for bad debts

Calculation and Reporting of Days Sales Outstanding

The period calculation of days sales receivable ratio is very important while measuring the development of the collection results Furthermore, such information would facilitate the estimation of the amount to be posted as provision for bad debts

Another important point is - the compliance with certain day sales ratio

as a requirement of the World Bank loan contract In the event of non-compliance with this covenant appears the risk that World Bank might call the loan and this accordingly should be disclosed in LPC financial statement

The calculation formula is

$$x \text{ (days)} = \frac{\text{Outstanding Debt}}{\text{Annual Sales}} \times 365 \text{ days}$$

Calculation of Provision For Bad Debt

The system should be able to help Accounting or/and Energy Sales departments in calculation of provision for bad debts

There are two main methods for calculation of provision for bad debts

1 Specific - the detail analysis of each selected balance (usually the largest balances) is performed in order to evaluate which part of the debt will most likely be not collected

2 General - evaluation is done on an overall basis concluding that a certain determined percentage of receivables will not be collected from the total receivable balance For example, based on the aging of receivable (see Recording/Reporting of Aged Receivables above) the certain percentage of provision could be allocated to each group

Group Nr 1	From 0 to 30 days	5%
Group Nr 2	From 30 to 60 days	25%
Group Nr 3	From 90 to 180 days	50%
Group Nr 4	From 180 to 360 days	75%
Group Nr 5	Over 360 days	100%

As an alternative to the method above, LPC might select the method of provisioning based on the risk related to each group of customer e g one percentage would be allocated to the debt of residential sector, another to industrial, and etc

The groups, method and percentage of provision should be

selected based on the Company's collection experience and should reflect the real value of receivable as of end of the period

The capability of the system in this case would be to assist the Company in preparing aging reports, providing the total numbers of receivables by each group of customers, allowing to perform the mixed type of provisioning then the specific provision is applied to the largest outstanding balances and the general to the remaining part

The system could also be able to track down the customers which have debts on different branches in order to apply the same level of provision to all debts belonging to the same customer

Production of Period-End Financial and Management Information

The system should be able to provide balances of outstanding receivables as of end or reporting period for each branch, each service and segment as well as total amounts for the whole Company The balances should include the unpaid bills for the previous periods as well as balances of consumed but not yet billed energy for the period

The customer advance payments for future energy consumption should be separated from the accounts receivable balances and be recorded as accounts payable by LPC

VAT billed, should be identified separately in such manner that the system would be able to produce amount of VAT payable by the period

The system should perform the automatic calculation of penalty interest and other charges by each unpaid balance at the same time recording it to the separate account in order not to mix penalty interest with the principal amount receivable The statistical information on how much of penalty interest/other charges were paid during each period should be reported as well in order to reflect it in the accounting records

The system based on the timing criteria set by the Company, should be able to follow up on the time the accounts receivable balance should be written-off and provide reports identifying accounts to be written-off and transferred to off-balance sheet account of LPC

In case LPC is continuing to sign the loan contracts with customers, delaying their repayment term to any described date the system should be able to track such amounts and prepare reports identifying the time of expected cash inflow based on the loan contracts The reason is that such debts will not be collected in the nearest future and LPC management should know this while planning the cash flow of the Company

Posting of Payments

Posting of incoming payments to customers accounts should be done in such a manner that these payments are posted to the appropriate months receivables rather than to the oldest unpaid receivable Where payment cannot be matched to the correct months receivable it would, as default, be posted then to the oldest receivable

5 Cost Reduction

Automatic Transfer of Unpaid Receivables

Through the creation of a computerized accounting transaction, a customer's unpaid receivable can automatically be transferred to their new residence or business location for continued accelerated collection action The customer's account at their former location would be credited and their account at the new location would be deleted

Levelized Payment Plan

Implementation of a levelized payment plan would allow customers to pay a fixed or levelized amount each month rather than an irregular amount which at times can cause seasonal financial hardships

Potential benefits to the customers could be

- guarantee of no disconnections for continued regular payment
- interest paid during periods of overcollection
- easier personal financial planning

Potential benefits to LPC could be

- improved customer payment habits

o avoidance of disconnection of service

o improved and leveled cash flow

Use of customer's computerized historical usage in combination with information on forecasted price changes and weather forecasts, can produce reasonable estimates of levelized payment amounts for individual customers

Predictive Dialing System Linkage

Equipment is available in the marketplace which can provide the ability to make collection telephone calls at an extremely efficient rate Interfacing with the computer system and its customers phone numbers high volumes of customers can be contacted for collection from centralized or localized operations, either manned or unmanned

The high level of efficiency of this type of operation can be accomplished through four main capabilities 1) automatic dialing of customer phone
numbers 2) predictive or overlapping telephone activities, 3) use of proven effective collection dialogues, and 4) capture and turnaround of results of customer contacts and attempted contacts

Computer Produced Field Disconnect Orders

Rather than allowing office personnel to manually make decisions on accounts to be sent to the field for disconnection of utility service for non-payment, the computer should automatically select accounts for collection action, based on pre-established criteria, and produce field disconnect orders from a local operation

Accounts which do not merit office review or field action can be automatically screened out, examples of such accounts are "socially supported" customers, "sensitive" customers, customers with low-balances, etc

Voice Response Unit (VRU) Linkage

Equipment is available in the marketplace which can provide an automated highly efficient interface between customers and the computers customer information Generally referred to as voice response units (VRU's), many high volume customer transactions can be answered without the involvement of manpower

Examples of some customer transactions that can be handled by these units are inquires about amount owing, scheduled disconnection date, payment locations, office locations, etc

These VRU's can operate as stand-alone units or be positioned either in front or behind a manned telephone answering system

6 Improve Service To Customers

Planned Shutdown Notifications

Through the numerical connection of electric coordinates, the linkage along the electrical distribution system from feeder to transformers to service points at individual customer accounts can be tracked This linkage from the transformers to the individual customers account(s) served and those customer(s) phone numbers contained on the customers account can be utilized to make telephone contact with each customer served by a given transformer

When a transformer and its connecting customers are to be put out of service due to maintenance on the transformer, advance notification to customers served by the transformer can minimize the inconvenience to customers

Transformer Loading

Similar to the previous item, Planned Shutdown Notifications, the computers accumulation of customers energy consumption by transformer locations, in combination with the transformers rated capacity, can be used to determine the electrical load on the transformer Tracking this electrical load on each transformer can assist in determining the appropriate timing for upgrading the transformers size or taking other preventive maintenance steps

Summary Billing

Generally customers would prefer to receive one bill rather than many bills Computer summarization of the customers billing information onto a single (or fewer) billing invoice provides a convenience to the customer and can result in improved cash flows and better ability to track customers payment habits and total LPC risk

Early Outage Location Isolation

Similar to the previous item, Planned Shutdown Notification, early recognition that customers complaints of lost electricity which can be

linked by the computer to a common serving distribution electrical device, can provide for more rapid response to the electrical problem, the correction of the problem and restoration of customers service

7 Streamline Operations

Payment Arrangement History

When customers are unable to pay their bills in full, on time, in order to avoid discontinuance of service, reasonable arrangements can be made for payment in installments A computer record of the conditions of each arrangement would allow easy tracking of the arrangement to ensure customer compliance with the conditions of the arrangement If conditions are broken, tracking would allow immediate follow-up for full collection

Maintaining a history of the customers success or failure in keeping each arrangement granted, would allow LPC to make informed decisions, with some degree of certainty, whether future arrangements should be granted

Collection History

Computer retention of collection history for each customer is an essential element in reducing uncollectables The capability should exist to maintain at least one years history of 1) dates and numbers of times past-due notices were issued, 2) dates and number of times utility service was discontinued for non-payment Availability of this information on the computer will allow local operations to make informed decisions on collection action and/or the computer to automatically prioritize collection work based on customers past payment history or justify decisions to re-establish credit based on past payment history

Broken Seal History

A historical record of broken or missing meter seals can be an important tool in identifying situations of theft of energy and in supporting efforts to collect lost revenues and/or taking civil or criminal action Reported broken seals should result in the creation of a historical record and a field work order which would require a technician to perform a thorough inspection of the customer's metering facility

Workload Management Cycle/System

The purpose of a cycle would be to establish a methodology which would allow organizing and evening out or balancing the collection workload in order to begin a process of EDUCATING the customer

The use of the Oracle System would be invaluable to this process From a collection standpoint, you want to get in a position so that when you tell the customer on a past due notice that this bill is scheduled to be discontinued on a certain day if payment is not made, that their energy service will be discontinued on or very close to that day without further notice In collection work you always want to try and do what you say you're going to do in order to EDUCATE, or train, the customer to behave the way you want them to Once you get to the point that you can discontinue the customer's service when you tell them you are, then they pay on time When the customer is educated to do this, over time your accounts receivable will be reduced, you'll have less disconnections, and eventually lower costs From that point on you'll have a manageable workload It takes time and frequently additional manpower dedicated on a temporary basis, but it's definitely worth it

As further explanation of a cycle, lets assume that we took a map of the Vilnius operating district For the purposes of our example, use 7 cycles, identified as B, C, D, E, F, G, and H The boundaries for the cycles on a map would be initially established on a map of Vilnius so that each area/cycle had approximately the same number of customers requiring collection activity This would be how we would balance the workload The areas/cycles would be adjacent to each other so that B would be next to C, C next to D, and so on This would help to reduce travel time and costs to discontinue and restore service

Using these 7 areas/cycles, customers in one area/cycle (B) would become past due on the same day Three days later, customers in the next cycle/area (C)would become past due Three days was arrived at because there are almost always 21 work days in a calendar month and since in our example there are 7 cycles, 21 workdays divided by 7 cycles equals three workdays per cycle

Therefore every three days a different cycle becomes past due and the collection work for that cycle is to be completed in the next three days before the next cycle becomes past due and ready for collection work This would continue through each month until all 7 cycles have become past due and are processed and will continue in the same manner month after month

The identity of the cycle/area (i e , B through H) could be included in the computer record for each customer or be a part of the account number

This would help in scheduling work and overall management of the collection system

8. Improve Company Image

Third Party Notification System

A valuable service to offer customers which also can improve a company's external image is Third Party Notification This simple service allows customers, particularly those who live alone and are elderly, disabled or are generally unable to reliably manage their affairs (such as payment of their utility bills), is to designate a third party to be contacted by the utility company before service is discontinued This third party would contact the customer and ensure that the utility bill is paid The Oracle System would be an ideal location to note that the customer is utilizing this service and maintain the identity and means of contact for the third party