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RUSSIAN FEDERATION
WATER AND WASTEWATER PROJECT

Russian Water Loan Feasibility Assessment: Pskov Partnership with Limited Liability "Vodokanal," Pskov Oblast

Prepared for the United States Agency for International Development
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EXECUTIVE SUMMARY

FINANCIAL CONDITIONS

Full Cost Recovery in Tariff

The Pskov Duma, in denying the inclusion of the full amount of depreciation, has denied the Vodokanal an essential element in maintaining and replacing equipment and fixed assets that badly need to be rehabilitated or replaced. The Duma may well believe that the Vodokanal is inefficient in its operations and that by denying the depreciation as a part of the tariff, it will force the Vodokanal Partnership to use its profit (*rentabelnost*) to carry out the rehabilitation or replacements. However, this is neither consistent with the Charter nor the Workers' Collective agreement that has very substantial right under Russian Labor Law.

The disagreement between the Duma and the Vodokanal's over its performance does underscore the need to implement a clearly defined service agreement between the City and the Vodokanal.

Improve Collection Rates and Level of Cash Transactions

Like all of the other seven cities PADCO consultants have reviewed, the Pskov Vodokanal has seen a steady decrease in cash collections for services and a marked increase in bartering and offsets to take the place of cash. Cash receipts in 1995 were 32 percent of the total billed while the cash receipts for 1996 were only 18 percent. In a sign that bartering and the use of offsets are maturing, the Vodokanal actually improved its collection rate from 1995 to 1996. In 1995 the total collections of the amount billed was 67 percent. However, in 1996 the collections increased to 82 percent. Although the collection rate is increasing, the fact that it is not in cash creates very substantial doubt as to whether the utility could service debt for a loan and still have sufficient cash to pay for items and services for which bartering and offsets can not be used. Federal taxes, at least in part, and electricity and supplies from outside the region where bartering must be paid in cash limiting the amount of cash currently available for debt repayment..

Implementation of Cost Accounting System

In light of the differences of opinion concerning efficiency and operations of the Vodokanal, an integrated cost accounting system should be tied to a management information system. Such a system could show management and the City Duma more accurately the economical and operational performance of the Vodokanal.

Additionally, the cost accounting system and management information system could be set up with performance indices that could verify the meeting of performance goals and objectives stated in a service agreement. The Vodokanal should incorporate the computerization of its accounting system, management information system and training into its loan request to ensure that the tools for reporting in place. Finally, the flagging of trouble spots can be done in a timely fashion if the MIS system and the cost accounting system are in place and functioning as intended.

INSTITUTIONAL CONDITIONS

Organizational Structure

The Pskov Vodokanal is currently a partnership of several hundred partners. The recent passage of the new Civil Code makes this form of organization outdated. The Vodokanal will have to reorganize as a joint stock company or as a municipal unitary enterprise. This process has been made more difficult since existing partners believe that they have would lose in the reorganization and want to be paid first for their share of the partnership. Only a very small fraction of the assets of the partnership are actually owned by the partnership. The majority of the assets were assigned to the Vodokanal (Partnership) by the City Property Committee. However, that does not lessen the conflict and fear of loss by the partners.

Once the organizational structure is agreed upon and established, it will be essential to follow-up with the service agreement that clearly defines the responsibilities and obligations of the Vodokanal and the City.

Establish a Cost Savings and Water Loss Program

The Pskov Vodokanal has many employees that come up with ideas as to how the system can be made to work better and with less cost. The Vodokanal management should employ this synergism by giving some type of reward for cost savings ideas. Generally such plans award some amount of cash or percentage of savings. This program could be implemented without much cost, yet the opportunity for savings is substantial.

Additionally, the Vodokanal needs to develop a strategic plan for reducing system water loss. This effort would entail development of 1) a thorough inventory and history of the existing system, 2) adjustment of as-built drawings to conform to the actual location of lines, valves, etc., 3) identification of the weakest points of the hydraulic system (pressure and break points), 4) a plan to address the various deficiencies identified in the process.

Establish a Demand Management Program

Through a publicity campaign and other informational distribution methods, the Vodokanal can make the residential, commercial and industrial customers aware of the need to meter water and charge for the water based on the metered consumption. After the informational campaign has been established, the Vodokanal should meter at the whole building level. Pskov, unlike most other Russian cities, has installed meters in about 85 percent of the residential buildings it serves. It should not be too difficult to complete the metering and implement the process of charging according to consumption since the Vodokanal has recently taken over the billing process. However, as is described in the section on billing and collection of this review, the Municipal Housing Maintenance Company will have to enforce collection from the individual apartment dwellers in order not to come up with a shortfall. Although the Vodokanal bills the full amount to the Municipal Housing Maintenance Company, it bills residents according to a norm and not the actual average consumption. It is anticipated that the Municipal Housing Maintenance Company will begin billing for the actual amount of consumption in order to avoid shortfalls.

Targeted Subsidies Program

During the transition to consumption based billing and increased tariffs to accommodate full cost recovery, especially the full depreciation, the City should prepare for an increase in assistance to those who qualify for the income based assistance. This will be particularly true if the present level of general subsidy (amount paid by the City or covered by a cross-subsidy) is reduced. PADCO Consultants have determined that the need for income based subsidy will increase significantly as the tariff rises to full cost recovery including debt service.[1]

The income based subsidy program should be well publicized prior to the billing based on consumption program is initiated so as to allay fears of those on fixed and limited incomes will not oppose the implementation of the metering at the whole building level.

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[1] See PADCO Report, "Communal Services Pricing-Novgorod Teploenergo and Pskov Vodokanal: Towards a New Model of Commun[illegible] Service Provision," USAID/PADCO Contract NO. CCS-0008-C-00-2057-00, Task Order 84, April [illegible]

PSKOV ACTION PLAN
FOR FINANCIAL
AND INSTITUTIONAL AND REGULATORY REFORM

ACTION ITEM	RESPONSIBLE PARTY	APPROX. DATE DONE
Institutional Reforms		
1. Establish the Pskov Vodokanal as a joint stock company or as a municipal unitary enterprise	Vodokanal and City	December 31, 1997
2. Negotiate a service agreement that will provide detailed performance obligations for the Vodokanal and the City	Vodokanal and City	December 31, 1997
3. Establish a strategic plan to incorporate cost accounting and a management information system	Vodokanal	December 31, 1997
4. Review services that may be contracted out or privatized	Vodokanal	December 31, 1997
5. Publicize and implement a loss reduction program in the Vodokanal system and in apartment buildings	Vodokanal and City	December 31, 1997
6. Implement a cost savings program where employees who develop cost savings share in that cost savings	Vodokanal	December 31, 1997
7. Establish an independent tariff approval body in order to make the tariff approval process transparent and less politicized	City, Oblast Governments	December 31, 1998
8. The Tariff Review Commission should be made up of professionals who know water and wastewater services as well as customer representatives. The Tariff Review Commission should hold open hearings on tariff increase proposals.	City, Oblast Governments	December 31, 1998
9. The Vodokanal should complete the metering of whole residential buildings and bill directly based on consumption.	Vodokanal, City	December 31, 1997
Financial Reforms		
1. Permit the full amount of asset depreciation to be a part of the tariff	City	Immediately
2. Request legislation that would permit the inclusion of bad debt expense in the tariff	Federal, Oblast and City Governments	December 31, 1998
3. Upgrade the computerization of the accounting and financial functions integrating this information with a management information system. Provide hardware, software and training for all staff.	Vodokanal	July 1, 1999
4. Decrease the level of bartering and use of offsets to the level feasible. The Vodokanal should have a goal of attaining 50 percent cash receipts by the time a loan is consummated.	Vodokanal	July 1, 1998
5. Continue to focus on reducing the accounts receivable and the long delays that are now experienced. The Vodokanal needs to develop a progressive collection enforcement program starting with friendly reminders to court action to shut-off of service.	Vodokanal	December 31, 1997

1. Assessment of Institutional and Regulatory Environment

1.1 Corporate Structure

The Pskov Vodokanal has a unique organizational structure. It is organized as a partnership with the number of partners, at its inception of 630. As of December 31, 1996, that number was 570. As a partnership, the Director of the Vodokanal is chosen by the partners instead of being chosen by the head of the Administration. Although this organizational structure separates the appointment of the chief executive officer of the Vodokanal from the City's appointive process, there are other ways that the City can influence the management control and autonomy of the Vodokanal.

An example of the "hegemony" that the City may exercise can be seen in the recent tariff approval. The tariff goes through several levels of approval before the final tariff becomes effective (see the following graphic on the tariff approval process). During recent tariff approval meetings the City Administration and Duma eliminated the depreciation on City owned assets (the vast majority of assets) because it claimed that the Vodokanal was "inefficient". While the Duma and City Administration were general in their discussions, it became clear that the desire to exercise more control over the provision of water and wastewater service was one of its goals.

1.1.1 Relations with the City and Oblast

Pskov Vodokanal operation is based on the lease agreement with Municipal Property Committee. Vodokanal under this agreement is obliged to maintain the city owned assets in a proper way, use the assets according to their designation, use depreciation fund to reconstruct and renew the main assets (currently is not carried out), etc. The current agreement is valid until the year 2001. The service agreement with the Housing and Communal Municipal Committee as an indispensable appendix of the lease agreement stipulates the obligations of Vodokanal for water and wastewater provision.

Though Lease Agreement and Service Agreement are the principal documents regulating relationship between the local authorities and Vodokanal, they are very short (about 10 pages) and do not reflect many major aspects, as financial obligations of the city to pay for services, penalties for non- payment, etc. A number of requirements in the current agreement are not followed by either the city or Vodokanal. For example, city does not allow Vodokanal to include the depreciation in the tariff structure, and Vodokanal in turn is not able to perform renovation of the city assets. Vodokanal is not able to fulfill the annual capital repair program, stipulated by the agreement because of the poor collection especially from the budget organizations.

Despite the mentioned above problem relationship between the Vodokanal management and city administration and Duma are more constructive than antagonistic. Each party understands the problems and tries to find mutually acceptable solutions.

1.1.2 Obstacles to Operational and Financial Vodokanal Autonomy

It is well recognized that the Vodokanal is a monopoly and as such must be regulated by an independent party to protect the poorest of the consumer (quality of service, cost of service, etc.). The regulation of the Pskov Vodokanal tariff gives the City Administration and Duma several opportunities to regulate the price charged for vodokanal services as well as comment on the service provided. Although the decision to eliminate depreciation from the cost of providing the service (*sebestoimost*) may send a strong message to the management of the Vodokanal, it may also have some serious consequences for the physical plant of the Vodokanal.

The strategy of denying the Vodokanal the depreciation was to force the Vodokanal, and the Partnership, to use profits to repair and maintain fixed assets and equipment. However, this strategy works only if the Vodokanal actually has a profit (under Russian Accounting Regulations) from which it can allocate funds. It would appear from the disagreement described above that the Vodokanal exercise very significant operations autonomy. However, when we look at the fiscal autonomy we can see that the Vodokanal is very much dependent on the approval of timely, full-cost recovery tariffs. The Vodokanal is also very dependent on the City for capital improvements funding.

Capital improvements of existing fixed assets and equipment are supposed to be covered by the depreciation of that asset. Completely new assets are provided by grant from the City, Oblast or Federal government or are provided by the creation of debt. A problem that may arise in the payment of debt is that sufficient depreciation to cover the debt service (principal portion) may not be available. By denying depreciation as a basic cost of providing the service, the Duma and City Administration may be doing significant harm to capital repairs and replacements that would be provided out of depreciation. Concurrently, the Vodokanal management will use as little of the profits as possible because bonuses and other employee benefits come from this remaining amount (i.e., vacations, camps, etc.).

1.2 Assessment of Vodokanal Management and Operations

1.2.1 Organization and Management

Except for the partnership organizational structure, the Pskov Vodokanal organization chart is very similar to that followed by other vodokanals in Russia. The Director is the chief executive officer of the organization and has several department heads reporting to him. The Director of the Vodokanal oversees operations, the budget and financial transactions requiring agreements and his signing of the agreements.

1.2.2 Human Resource Management

At the end of June 1997 Vodokanal employed 772 persons (one employee for every 238 customers). Of this number 56 are management or administrative, 266 are involved with the production and distribution of water, 277 are involved with the

wastewater collection and treatment 173 are shared employees of support services. The number of employees has been reduced from 790 to 772 within the last three months. Vodokanal officials believe that this reduction is a result of the new personnel compensation strategy adopted in April 1997. According to this policy the permanent full-time personnel are compensated by a fund that is set up for each department. The department has this fund available irrespective of the changes in the number of employees in the department. The new policy has changed drastically the approach of departmental management to the problem Supervisors and the Worker's Collective requesting more employees. Supervisors, the Worker's Collective and employees in general stopped complaining about the shortage of the work force and urging management to hire more people. When an employee leaves the Vodokanal he or she is not replaced. However, their salary is available for use in the department.

So long as the level and quality of work remain high and savings are eventually realized by the Vodokanal, this policy would seem to "encourage" the cooperation of the employees and Worker's Collective. However, it must be stressed that savings have to be realized for this strategy to be of much help to the Vodokanal.

1.2.3 Operation and Maintenance

The Vodokanal operates and maintains the entire municipal water and wastewater system in Pskov. Many sections of the system are very old and in deteriorating condition. Every year there are between 400 and 500 emergency repairs performed on pipes that have burst. According to the Vodokanal's monthly maintenance reports, repair work has been carried out at the level of about 80 percent of the planned maintenance. The maintenance work does not reduce the emergency call out situation because most lines require replacement given their age. .

In addition to the aging and deteriorating system, the Vodokanal has been given the responsibility for increased lines that were once owned by production enterprises but divested to the City and then to the Vodokanal. Not only does this divestiture add greater maintenance responsibilities to the Vodokanal but it also requires more treatment capacity and staffing to handle the increased demand.

The Vodokanal has a laboratory, which monitors the biological, chemical and physical quality of the water at the water source, in the networks, as well as the wastewater they release back into the river. In the 1996 Annual Report, the Pskov Vodokanal indicates that four out of the 12 monthly tests did not satisfy the color standards, and one of the monthly tests failed turbidity standards.

1.2.4 Vodokanal System

As of June 1997, the Vodokanal produced an average 129,000 cubic meters of water per day from its Velikaya River intake. The production of water is metered at the second stage pumping station. The water supply system is 251 kilometers in length with 5.4 kilometers of transmission pipes 700-800 millimeters in diameter from the second stage pumping station to the city mains. There are 32.3 kilometers in length with diameter from 400 to 700 millimeters. Distribution lines range in diameter from 20 to 350 millimeters and account for 213 kilometers of the total system. There are

thirteen under-river water crossings totaling 3.4 kilometers in length. Four large storage tanks, with capacity of 8,000 cubic meters, are located in the North-East part of the city to provide for peak demand water consumption periods.

There are about 206 kilometers of sewer lines connecting customers to the sewer treatment facility. Ten under-river sewer crossings totaling 2.7 kilometers in length connect customers from the other bank of the river with the sewer treatment plant. Although Pskov has a separate storm drainage system which is operated by another municipal company, the inflow of storm water into the sewer lines is considerable. Part of the inflow is caused by the poor conditions of the sewer system and infiltration of the ground water in the pipes. On average, flow at the sewer treating plant is about 30 percent higher than the billed amount for sewage to customers. In 1996 The Vodokanal billed customers for sewage an average 81,000 cubic meters per day, while average daily metered flow to the sewage treatment plant was about 114,000 cubic meters.

New sewage treatment equipment (aeration tanks with electronic control and flow meters) has been recently put into operation as a joint project of Russian Government, Pskov Oblast and Danish Government. However, the addition of the new equipment has not been able to assist the Vodokanal from being fined on average approximately 2,000,000,000 rubles per year. Although the Vodokanal can add a surcharge on to the bill of the production enterprises that are causing the problem, collecting the payment is a problem. The Vodokanal must pay the Federal environmental protection agency and then seek redress with the problem causing enterprises. Hence, with the poor cash flow of the enterprises and lack of payment, the Vodokanal must pay its own funds for the overages in heavy metals, etc. These same heavy metals prevent the sludge from being land applied for agricultural purposes.

1.3 Regulatory

1.3.1 Tariff Approval Process

Federal legislation specifies that tariffs for housing and communal services are established by the local self governing representative and executive bodies. Point 3.3 of the Article 28 of the recently adopted Pskov City Charter (March 6, 1997) specifies that City Duma "establishes in accordance with legislation the tariffs and prices for the goods and services, produced and rendered by the municipal enterprises." According to the city officials, even if Vodokanal is not a municipal enterprise, tariffs for water and sewer should be approved by the City Duma. Current tariffs for water and sewer have been approved by the City Duma as of March 28, 1997, and signed by the Duma Chairman and the City Mayor. City Administration established housing and communal tariffs review procedures through the Resolution #1523-r dated 7/9/96. According to this resolution a commission headed by the deputy mayor reviews and submits reviewed tariff to the city administration meeting. Commission includes members from the Communal Energy Committee of the City Administration, representatives of housing and communal services providers, and representative of the local businesses. City Communal Energy Committee, two of which Vodokanal personnel, are also members of the commission dealing with water tariffs as well. Figure 1 shows the current procedure of communal services tariffs approval in Pskov.

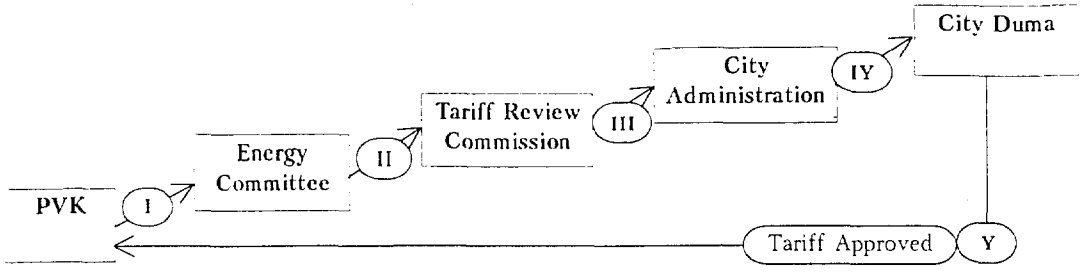
Tariff increases for the last two and one-half years are shown in the table below. Note that although the tariff increased for the population category substantially, the Budget and Enterprise categories are still cross subsidizing the residential customer at approximately a four to one ratio.

Table. 1.
Water and Wastewater Tariffs in Pskov in 1996-1997 (without VAT)

The Date of the Tariff Approval	Residential Customers				Other Customers			
	Water		Wastewater		Water		Wastewater	
	Tariff (Rubles/ m3)	Change to Previous (%)	Tariff (Rubles/ m3)	Change to Previous (%)	Tariff (Rubles/ m3)	Change to Previous (%)	Tariff (Rubles/ m3)	Change to Previous (%)
April 1997	800	167%	550	170%	3,600	127%	1,900	115%
July 1996	480	215%	324	204%	2,824	79%	1,647	87%
January 1996	223	100%	159	100%	3,556	162%	1,900	162%
July 1995	223	279%	159	265%	2,189	85%	1,176	81%
April 1995	80	100%	60	100%	2,580	134%	1,450	137%
January 1995	80	N/A	60	N/A	1,919	N/A	1,055	N/A

Figure 1

Current Tariff Approval Procedure in Pskov



1.3.2 Tariff Structure

The water and sewer tariff cost components are approved according to a methodology adopted by City Resolution # 1523-R. Major expenses, such as electricity (27% of the total costs), personnel costs (19.1%), etc. are included in the tariff based on the previous period of operation, usually previous quarter.

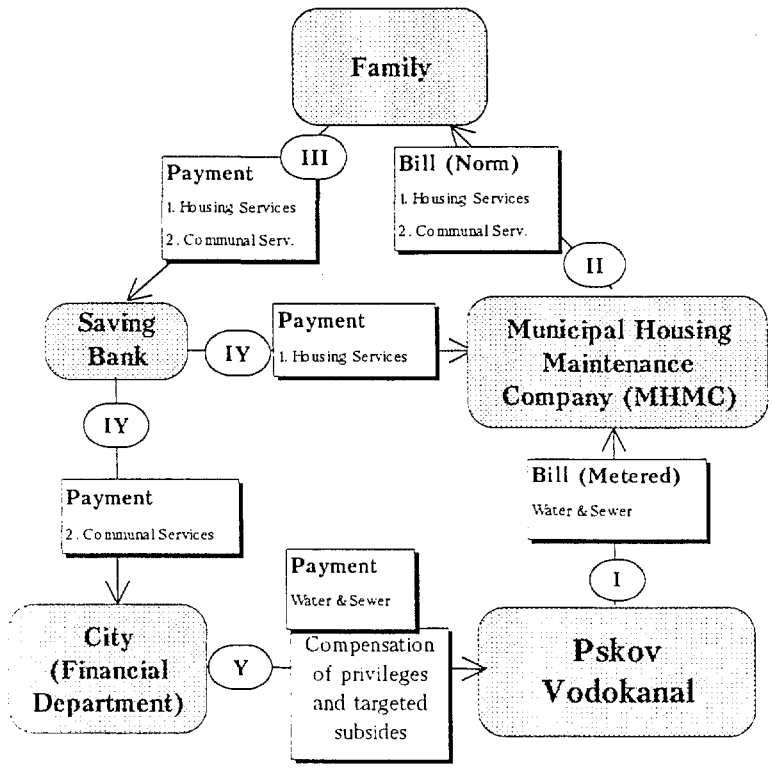
Capital rehabilitation is the third largest cost item in the Pskov Vodokanal operating budget after electricity and wages. Capital rehabilitation amounts to 14% of the total planned annual expenses on water and sewer. Currently, the cost estimation of system capital rehabilitation is calculated based on cost estimates, developed in 1984, of work to be performed. They then use an inflator applied to the 1984 unit costs[2] to arrive at the final estimate. These estimates are prepared in November of the year preceding the year when the capital rehabilitation is planned. After city approval of the Capital Improvements budget, the Vodokanal selects a contractor for about 50% of the capital rehabilitation to be done. The rest is done by Vodokanal's repair teams. There are several companies in Pskov, which usually apply for the rehabilitation work. Selection is made by the Director of the Vodokanal based on the bid that is most beneficial for the Vodokanal. Although the Vodokanal Director may make the best choice, he does not make this process transparent and the other competitors do not know why they were not selected, or what terms were offered by the winning bid.

[2] Earlier, during the Soviet Era estimates of rehabilitation costs had to be approved by the City prior to any repair or replacement. After the collapse of the Soviet Union, in order to facilitate cost estimations entities estimating these costs simply used the established procedures and numbers then used a factor to adjust for inflation to arrive at a current cost estimate. These coefficient factors are updated periodically (usually every three months) to keep up with inflation.

1.3.3 Billing and Collection Procedure

Beginning from March 1997, local housing companies stopped collecting communal services payments from the population in municipal housing. This function was given to the City Finance Department (*GorFU-gorodskoe finansovoe upravlenie*). According to procedures approved by the City Mayor, the City Finance Department transfers money collected from the population every ten days in order to keep a steady cash flow to the communal services providers, including the Vodokanal, (See Figure 2). This action is considered by City Administration as an intermediate step to direct collection of communal services payments by their providers. Currently the population pays to the bank two bills for housing and communal services: one bill for housing maintenance and one single bill for all other communal services (See Figure 2).

Figure 2 Billing and Collection Process



One may note several weak points in the current billing and collection procedures. Among the most critical are:

- The population customer category receives bills according to a norm not actual consumption, while the Vodokanal bills the Municipal Housing Maintenance Company according to metered consumption installed at the building level (See Figure 2). On average, the population customers consume about 20% higher than the norm.

- Vodokanal does not know the actual collection level from the population, nor information about individual non-payers. The procedures specify that the Saving Bank should give the data about individual bills to the micro-raion administrations. The micro-raion does not automatically have this information with the Vodokanal making it very difficult for the Vodokanal to conduct a collection enforcement program.

- The Vodokanal is still dependent on the city finance department for payment (See Figure 2). The City Finance Department, as an instrument of city administration, may delay payments, or substitute cash with non-cash payments. Vodokanal officials express satisfaction in this current collection process. The major problem for the Vodokanal now is to collect enough cash to pay salaries to its personnel. For this purpose, the City Finance Department has set up a special account, which is able to avoid creditor and tax claims, to which it sends money. If the Vodokanal starts collecting money directly on it's own account at the bank, it runs the risk of having that money automatically transferred as taxes, and to other creditors of the Vodokanal. *(Currently the Vodokanal owes about 10 billion rubles in taxes and other obligatory payments.* At the present moment it may be self-defeating for the Vodokanal to collect payments directly.

1.3.4 System Losses

In 1996 about 44% of the water produced by Vodokanal was not billed to customers. The essential part of this unaccounted water was lost in the system. The City Administration has started a program of loss reduction. According to information received from Vodokanal officials, city has already paid about 40% of the total price of sophisticated leakage detection equipment worth $55,000. Unfortunately second half of the payment has been delayed.

Apartment Losses

Currently at least 25% of water consumed in apartments is lost through the leaky sanitary equipment in apartments (see PADCO report). Current relationship of the population with the housing maintenance companies does not create an incentive for both parties to save water.

Current metering status

About 90% of buildings in Pskov are equipped with the cold water meters at the whole building level. Roughly half of them are not in working conditions.

1.4 Targeted Subsidies Program

Currently about 3000 families in Pskov are granted income based subsidies for housing and communal services. This is about 5% of the total families residing in apartments.

1.5 Recommendations for Institutional and Regulatory Reform

1.5.1 Organizational Structure and City Relationship

Recommendation 1

Vodokanal will reorganize itself in a Joint Stock Company. Organization of JSC may resolve many problems, which are currently very hard to deal with, for example:

- efficient employment policy
- more freedom in decision making for management
- independence from city (currently exists, but municipal status will restrict it),
- new Service Agreement (see Recommendation 2)

Time frame for completion: December 31, 1997.

Recommendation 2

The Service Agreement should spell out specific performance in all major functions of the Vodokanal, sanctions for not meeting performance, financial remuneration the Vodokanal (here full cost recovery including bad debt write off and debt service can be addressed), sanctions for the Vodokanal for non-payment by the City or similar provisions, responsibilities and liabilities that will be shared (e.g. environmental fines resulting from failure to enforce a pre-treatment program).

Time frame for completion: July 1, 1998

1.5.2 Organization Operations

Recommendation 3

Establish a goal oriented strategic planning program for the upper management and relate it to greater integration of a management information system that is computerized. The fully integrated management information system would allow management to assess production efficiency, aid in planning and relate it to cost centers based on cost accounting programs.

This recommendation is related to Recommendation 4.

Recommendation 4

Step 1

Establish a fully integrated computerized budgeting and cost accounting system. Provide each facility or department with monthly (quarterly) budget based on the previous period of operation and changes (improvements), which occurred during this period. At the end of each period the actual costs should be compared to the budget, analyzed, and compared to the results of facility operation. Special attention should be given to those activities which are not directly related to the water and sewer provision (e.g. cafeteria, water meter repair and testing shop)

Time frame for completion: December 31, 1997

Step 2
Based on the action described in Step 1 establish special incentives for saving an operation costs by the facility personnel, if previous period operation of facility proved to be satisfactory

Time frame for completion: December 31, 1997

Step 3
Consider privatization of specific functions or facilities, based on the Step 1 and Step 2.

Time frame for completion: April 1, 1998

Recommendation 5

To increase efficiency and reduce costs Vodokanal should organize an open competitive bidding for capital rehabilitation in 1998. Cost estimation and bidding documents should be completed and approved by the City in September to provide enough time for competitive bidding. Then an invitation to submit proposals should be published in a local newspaper. There may be several packages, one for each capital rehabilitation project. An open tender will make the selection process transparent, and will force candidates to offer the lowest price. On the other hand, each candidate knows, that capital rehabilitation program will be an ongoing program and will try to deliver the best performance in order to win the contracts for the next construction season.

Poor collection levels and non-cash transactions make bidding capital rehabilitation work extremely difficult or impossible. . For the year 1998 and later, the Vodokanal should plan capital rehabilitation work for which It can pay cash which would allow it to bid the work competitively.

Recommendation 6

To create incentives for employees, the human resources policy should be changed. A personal employment contracts with clearly defined obligations for employees and termination date (e.g., one year contract) is one of the ways to improve performance. This policy change would be accompanied by periodic performance evaluations and clearly written requirements for the employee to meet.

Time frame for completion: December 31, 1998

Recommendation 7
Performance goals:

- Reduce losses in apartments
- Stop subsidizing population for consumption over the city norm
- Create an incentive for population to keep sanitary equipment from leaking

- Create an incentive for maintenance company to repair the sanitary equipment promptly.

The program will require the following initiatives:
Action 1. Establish a Publicity program
Action 2. A one-time bonus related to a sanitary equipment repairs program
Action 3. Develop bidding documents and procedures and bid for housing maintenance
Action 4. Implement a Water meter rehabilitation program
Action 5. Develop the software to bill population according to metered consumption

Action 1

Use local media to inform the population in apartments about the need to reduce losses in apartments and to get population consumers used to the idea of paying based on consumption. For example, the average consumption of cold water in buildings with centralized hot water supply is about 190 liters per person per day, which is about 30% higher than city norm (145). Actual consumption of water in buildings with gas heaters is 316 liters per person per day -- 17% higher than norm (270). Mention in the publicity program should also be made about the fact that 20% of population currently consumes water lower than city norm. Some examples are: at Yubileynaya street, building 62, consumption of cold water per capita is 110 liters per day and at Rizhski street, building 53, consumption of cold water per capita is 340 liters per day.

The publicity effort should emphasize that reduction of apartment losses will improve quality of water by reducing the burden on the aging water treatment plant.

Additionally, water and sewer customers can be asked to call the housing maintenance company if their sanitary equipment is leaking. As a means of performance checks on the Vodokanal and housing maintenance enterprises, the City Administration can establish a hot-line phone at city Hall to receive complaints and suggestions from the population.

Action 2. Bonus Oriented Campaign for Apartment Loss Reduction

The goal of this step is to reduce losses from the sanitary equipment and inside plumbing of apartments prior to transferring to the metered billing. It is expected that after repairing sanitary equipment at least half of population will consume less than the norm. Metered billing at the whole building level will receive more support from population in this case. A similar effort was conducted by Mr. Begunov, chief engineer of the Pskov Micro-rayon #9 the beginning of 1997 for a 72-apartment building, located at Kommunalnaya Street, building 44A. The results exceeded his expectations. One plumber within a period of one month managed to reduce the consumption of cold water in this building by 45% compared to the previous period. The cost of the spare parts and other materials required for repair was negligible.

A cost savings/loss reduction strategy:

Current situation.

Micro-raion # 9 of Pskov. Population 8,000. Average monthly consumption of cold water - 60,000 cubic meters, or 250 liter per day per one tenant (based on the previous three months of operation).

Action.

Within the next three months conduct an aggressive campaign for loss reduction thought plumbing repairs. (Since the average cost of a cubic meter of water is 1,360 rubles. For each cubic meter of water saved per month the Vodokanal could share in the cost savings. If the Vodokanal shared 360 rubles per cubic meter of water saved with the housing maintenance enterprise it would still save a thousand rubles per cubic meter so saved. We would suggest that the Program in September 1997 and run for three months. The results will be based on the average monthly consumption during this period.

The selected buildings should have sufficient water supply and the meters for the whole building must be kept in good working order. .

Expected results.

Reduction of consumption by 20% will save about 5.94 billion. rubles per year, if the target of 20 percent water saved is achieved and the bonus program is run for a three month period.

To preserve the achieved results of this effort, action item three should be taken -- Develop Bidding Documents and Procedures for Housing Maintenance Services.

Along with the other requirements for housing maintenance candidates, the proposal should include:

- organization of billing according to metered consumption (may become a Vodokanal function in future); specific parameters of water consumption by population, e.g., monthly average consumption by population should not exceed the current level per capita (achieved after repair) by more than 10%; maintenance companies have to keep water meters in working conditions.

Action 4. Meter Rehabilitation Program at the Whole Building Level

This program would require repair of existing water meters in the buildings or install new. Some of the existing water meter installations in buildings will require only flushing while others require that the meters be repaired or changed for new.

Action 5. Develop a Computer Programs for Metered Billing

Computer software should be developed to allow for billing according to actual readings of the water meters at the building level averaged for all tenants residing in this building.

Recommendation 8

Transfer to direct collection of payment from population by the Vodokanal to collection by banks.

Time frame for completion December 31 1997.

Recommendation 9

System Losses Reduction

The program for system loss reduction should include: 1) thorough inventory of the existing system, including age, conditions of the existing equipment, 2) adjustment of the as-built drawings to real location and parameters of the networks. 3) identification of the weakest points in the system based on inventory control, leakage control, etc., 4) identification of the existing system hydraulic conditions, pressure heads at the consumption points and key points of the system, 5) developing an adequate hydraulic model of system, etc., 6) development of the computerized control system of the network parameters: production, flow, hydraulic conditions,

This program should also include an obligation for the Vodokanal to reach certain water loss objectives.

For example, the Vodokanal could be asked to meet the following water loss levels. System loss reduction (investments are required):

1997- 44%
1998- 40%
1999- 30%
2000- 25%
2001- 20%

Recommendation 11

Prepare fully the City subsidy department to be able to handle the increase of applications for assistance as the price for water and wastewater near full cost recovery and the residential consumer is required to pay the full bill. Computerization of the subsidy department should help keep up with the amount of increased applications as well as produce accurate timely information on the process and ensure that the social safety net is working.

Tariff Related Reform

Recommendation 12

Request additional amendment to Russian Federation Decree Number 552 that would allow the write off of the bad debts as an expense and debt service for loans to be included in the tariff. this will enable the Vodokanal to bill for full cost recovery of its services.

Recommendation 13

The Tariff Review Commission should hold public hearings on the proposed tariff in order to get public (consumer) response to the proposed increases. The hearing process combined with the addition of knowledgeable professional staff in the areas of water treatment and production and wastewater treatment will give all parties relative parity in the tariff increase proposal process.

Recommendation 14

Established tariff approval procedure should create an incentive for Vodokanal to reduce costs of operation. For example, if the tariff approval commission sets the electricity consumption based on the previous period of operation, the Vodokanal could then submit a plan to reduce electricity consumption through greater efficiencies that Vodokanal personnel can implement. In this case, the Commission could leave unchanged the approved expenditure for electricity for one quarter as an incentive for the Vodokanal to reduce costs at every opportunity. The difference between the old expenditure rate that is maintained for the three month period could go into a bonus fund for the Vodokanal employee who generated the cost savings (up to a percent of salary or other method of limiting windfall profits).

Recommendation 15

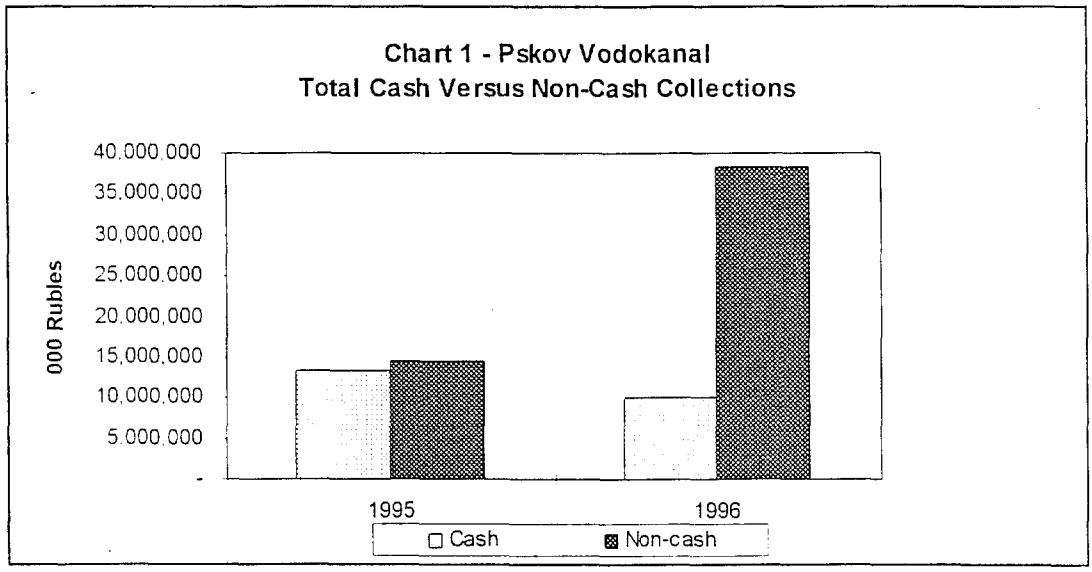
Depreciation should be included in a tariff structure as depreciation or as a lease payment. If depreciation is included as a lease payment, than city should use this money specially for the water and sewer system rehabilitation.

2. Financial Review

2.1 Introduction - Challenges Facing the Pskov Vodokanal

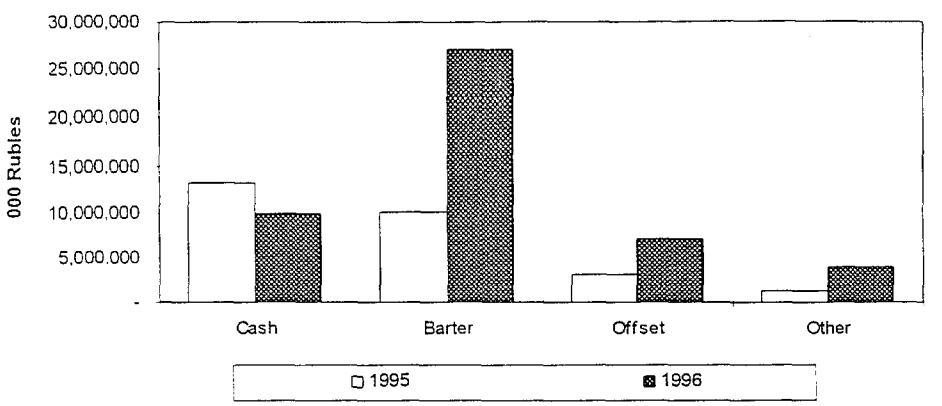
Declining macro-economic conditions in Russia has affected the Pskov Vodokanal in a number of ways. Over the past several years, fiscal constraints have prevented the government (national/oblast/local) from providing large subsidies to keep the water and wastewater systems operating efficiently. The resources available to the Pskov Vodokanal have declined so dramatically, that the system has rapidly deteriorated. The loss of subsidies, combined with locally induced limits on domestic tariffs, and an alarming deterioration of collections (substantial reduction in cash payments) has led the Pskov Vodokanal to a difficult financial position.

The Pskov Vodokanal collected about 63% of everything that it was owed in 1996 (including billings and accounts receivable starting balance). The 1996 collection rate is slightly higher than 1995's more modest 57% rate of collection. But, this is only a small part of the financial portrait. Total non-cash collections (offsets, barter) increased by more than 165%, rising to 38.4 billion Rubles from 14.5 billion Rubles in 1995 (Chart 1). Cash collections declined 25% in 1996, plummeting to 9 billion Rubles from 1995's 13.2 billion Rubles. This upward trend in non-cash collections continues unabated through the first quarter of 1997.



The Pskov Vodokanal has reacted to their declining financial position by reducing maintenance funding and by delaying payments to some service suppliers. Short-term cash flow loans increased by 86% in 1996, reaching a cumulative 2.8 billion Rubles from the previous year's 1.5 billion Rubles. Investments in new capacity, or upgrading of older capacity, are virtually nonexistent. The Pskov Vodokanal has resorted to

bartering, and receiving promissory notes, and offsets as a means of collections and payments (Chart 2).[3]



To transform itself into a financially viable business, that can support borrowing for capital investment, the Pskov Vodokanal must address some of the following issues, including:

- The existing tariffs have not reflected true economic costs of providing services. A tariff increase is required to bring tariffs in line with total operating expenses.

- The nature of domestic subsidies and domestic tariff regulation has obligated the Pskov Vodokanal to recoup costs by charging high prices to its local industrial customers where there is increasingly limited ability to repay. Higher charges on enterprises also translate into higher costs of local goods and services borne by the local consumers.

- Efficiency losses caused by charging industrial consumers higher than marginal cost prices under the existing system is exacerbated by uneconomic (and, wasteful consumption) of water on the part of households, as the existing tariff and billing structure which is based on city established norms does not encourage any water conservation behavior on the part of residential consumers.

- The Pskov Vodokanal has paid scant attention to increasing utility efficiency (reducing losses/leakage) since the tariff structure is based on water produced and not billed (i.e. customers pay for the inefficiency). The Pskov Vodokanal should make significant efforts to reduce the level of unaccounted-for water.

- The Pskov Vodokanal must actively resist all forms of non-cash payments. If this is deemed impractical, the Pskov Vodokanal should develop standardized procedures

[3] With respect to chart 2 - in 1996, some barter category items were mistakenly defined as offsets. In 1996, both barter and offset transactions increased.

(guidelines) for accepting non-cash payments including attaching surcharges and/or interest/transaction fees for handling barter goods.

The Pskov Vodokanal faces a large number of operational issues, including:

- The need to increase all operational expenses on maintenance of assets and infrastructure in the tariff structure; and,

- A need to redefine internal and external accounting systems to bring cost and revenue data in line with requirements of supporting management decision-making.

2.2 Operating Revenues

The operating revenues of the Pskov Vodokanal are largely dependent on payments from industrial enterprises, commercial businesses, and budgetary organizations. In 1996, residential users accounted for almost 27% of billed water, budgetary organizations and enterprises are 33% and 46%, respectively, of all billed water and wastewater.

The current residential tariff approved on March 28, 1997 for water is 800 Rubles per cubic meter (excluding VAT) for water and 500 Rubles (excluding VAT) per cubic meter of wastewater treated. Budget organizations and production enterprises pay 3,600 Rubles (excluding VAT) and 1,900 Rubles per cubic meter for water and wastewater, respectively.

Pskov, unlike many other Russian communities, meters its water consumption. This means that the consumption figures presented by the Pskov Vodokanal are much closer to actual consumption than the Russian consumption normative. During the past three years, billed population water remained almost constant. Total billed water consumption declined by 20%, from 34 million cubic meters in 1994 to 27 million cubic meters at the end of 1996. The dramatic reduction in billed water, was due primarily to the soft local economy. Furthermore, many enterprises facing increasing tariffs began installing water meters. This resulted in water bills that reflected actual rather than normative consumption.

Table 2.1
1996 Consumption By Customer Category

Customer Category	Water 000 m3	Share of Total (%)	Wastewater 000 m3	Share of Total (%)
Population	20,971	78.4	21,189	72.2
Budget Organization / Enterprise	5,781	21.6	8,157	27.8
Total	*26,752*	*100*	*29,346*	*100*

2.3 Financial Overview

The condensed profit and loss statement below indicates that the Pskov Vodokanal incurred operating losses in 1996.[4] Substantial increases in operating expenses and in non-cash (versus cash) collections have contributed to the general deterioration in the Pskov Vodokanal financial condition. The 1996 net income before depreciation was 3.6 billion rubles, not including depreciation expense of City owned assets.. Net income after depreciation, not including deprciation expense of City owned assets, in 1996 decreased to 2.5 billion rubles.

Table 2.2
PADCO Adjusted Pskov Profit and Loss
(For the Years Ended December 31, 1995, '96)
(000 Rubles)

		1995	1996	% CHANGE
+	Water/Wastewater revenue	38,305,499	47,815,961	25%
+	Subsidy	251,000	--	
+	Other income	80,114	326,942	308%
=	Net Income	38,636,613	48,142,903	25%
-	Total Expenses (excluding depreciation)	32,052,402	44,448,369	39%
=	Net Income before depreciation	6,584,211	3,644,534	(45)%
-	Depreciation	705,548	1,240,770	76%
=	Net income after depreciation	5,883,663	2,453,764	(58)%

Notes:
1) All income shown without VAT.
2) Total expenses includes other non-production expenses, other taxes, and fines.
3) Depreciation reflects only Pskov Vodokanal owned assets. Depreciation including leased city owned assets equaled 8.1 billion Rubles and 19.3 billion Rubles in 1995 and 1996, respectively.

2.3.1 Sales Revenue

Total billed water and wastewater increased by 25% to 47.8 billion rubles in 1996 from 38.3 billion rubles in 1995. Most of the revenue gains were a result of inflation rather than an increase in service deliveries. Other income, defined as income generated from hookups and other miscellaneous services, increased by more than 300% in 1996 from the previous year, reaching 326.9 million rubles.

2.3.2 Cost of Sales

Total expenses are made up of operating and non-operating expenses; the major items are summarized in the table below.[5] The cost of sales (*operating plus non-operating*

[4] See Appendices I, II, and III for additional financial detail.
[5] See Appendix III - Tables(s) "Expenses 1995 and 1996", respectively, for additional detail.

expenses excluding depreciation) grew by 39%, increasing from 1995's 32 billion rubles to 44.5 billion rubles in 1996.

Table 2.3
Total Pskov Vodokanal Operating Expenses for 1995 and 1996
(000 Rubles)

		1995	Share %	1996	Share %
+	Personnel Costs (wage related expenses)	10,700,664	33	10,027,069	22
+	Energy	7,743,462	24	12,472,322	27
+	Materials and Chemicals (Production Materials)	4,469,355	14	7,791,394	17
+	Repairs (materials and subcontractors work)	1,415,925	4	2,056,800	5
+	Mandatory Payments to Non-Budgetary Funds	896,144	2	3,231,481	7
+	Other Expenses	3,584,055	11	4,525,916	10
=	*Subtotal Operating Expenses*	28,809,605		40,104,982	
+	Non-Production Expenses	3,242,797	10	4,343,387	9
+	Depreciation	705,548	2	1,240,770	3
=	Total Expenses (Including Depreciation)	32,757,950	100	45,689,139	100

Notes:
1) Personnel costs include wages, pension, medical insurance fund, social insurance fund and employment fund.
2) Non-production expenses include other expenses, other taxes and fines.
3) Depreciation shown does not include leased city-owned assets.

Electricity spending increased by 61% over the 1995-1996 period, reaching 12.4 billion rubles in 1996. Significant increases in materials (74%) and all other expenses (26%) contributed to the weak financial performance of the Pskov Vodokanal. Electricity and labor are the two largest individual cost categories of the Pskov Vodokanal, accounting for 49% of total expenditures in 1996. Non-production expenses include items such as fines, and other expenses, increased by 34% to 4.3 billion rubles in 1996, from 3.2 billion rubles in 1995. The largest single category in non-production expenses 3.5 billion rubles were fines attached to late payments of social funds.

2.3.3 Depreciation

The Pskov Vodokanal includes depreciation in its tariff. However, the city of Pskov only allows the Pskov Vodokanal to depreciate the assets which they themselves own -- approximately 5% of all of the assets which they use -- even though current Russian legislation allows them the opportunity to depreciation all of the fixed assets involved

in their production.[6] In addition, Pskov Vodokanal's lease agreement with the City specifically states in Section 2.2 that Pskov Vodokanal is required to: "carry-out new construction, reconstruction, and replacement of the main production assets using its own depreciation fund. . .". Instead, the majority of the system renewal and replacement activities, if financed, is financed out of the municipal budget.

2.3.4 Collections and Payments - Aging of Accounts Receivable

While Pskov Vodokanal's financial difficulties are predominately related to low tariffs, the most immediate problem is the poor collection of outstanding bills. As of December 31, 1996, Pskov Vodokanal had more than 27.8 billion Rubles (excluding VAT) in outstanding receivables.[7] This level of accounts receivable has subsequently increased during the first quarter of 1997.[8] As of the end of December 1996, the outstanding receivable is close to 6 months of billings. Approximately 15% of accounts receivable is from the population, with an additional 51% and 34% owed by budgetary organizations and enterprise, respectively.

PADCO consultants engaged in the task of aging of receivables. Receivables reviewed over a two year period, and separated into the categories "less than 180 days", "181 days to 365 days" and "over 365 days". A criterion was considered to give an approximate aging.[9] Using this aging technique, the estimated 1996 stock of bad debt R856.1 million in 1996 (see Appendix- Financial Data).

2.4 Tariff - Excluded Expenses

The PADCO review of the Pskov Vodokanal's financial performance over the past two years, shows a systematic exclusion of certain costs that should have been included in the tariff. These tendencies largely reflect Federal regulations (and to a lesser extent, local prerogative) that govern the normal functions of an economic enterprise. The exclusion of these expenditure items prevent the Pskov Vodokanal from recovering their costs from monthly user charges.

Capital costs. At present, most capital improvements and expansions are financed by the city budget. As a result, there is little or no incentive for the Vodokanal to engage in capital budgeting. Because of the increasing strain on municipal budgets, very few municipal resources have been allocated for system extension and expansion. Under the present tariff system, the Pskov Vodokanal includes planned costs related to capital repair and depreciation for the assets under its control. The latter is intended to provide for capital rehabilitation and replacement. However, these two items are

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[6] Section 1., Paragraph 9 of the Regulation (Approved by Decision No. 552) states: "Enterprises, which function on leased terms, shall reflect depreciation allocations on the full restoration with regard to their own and leased fixed assets in their 'Depreciation of fixed assets' expense item.

[7] See Appendix III: Tables A/R 1-4 .

[8] Estimated first quarter 1997 accounts receivables indicates an increase of about 3.5 billion Rubles.

[9] (a) Determination of collection ratio as a percent of sale: (Total Collections)/ (Sales + VAT) x 100 = ratio. (b)Uncollected Sales = Collection Ratio - 100; (c) This ratio is then applied to age the debtors; and, (d) In addition, PADCO consultants had the opportunity to review a cross section of debtors to provide additional aging of receivables verification.

insufficient to satisfactorily repair or replace capital items. Further, the Pskov Vodokanal is not able to include the interest for loans associated with capital costs as direct costs into the tariff structure. The Pskov Vodokanal has not taken out loans to pay for any capital improvements or expansion. The Pskov Vodokanal does borrow money, but it is only for short-term cash flow requirements.

Depreciation. The Pskov Vodokanal is only allowed to include a depreciation value based on only the assets the Partnership owns, and not for any of the fixed assets it leases from the City, in its tariff calculation. As a result, the majority of system wide renewal and replacement activities are supposed to be financed through the municipal budget.

Bad debt expense. The carrying cost for accounts receivable (amounts owed by customers to the service provider) are currently not identified as a normal business expense item. However, under current Russian law, communal service providers can deduct written off bad debt receivables from their taxable income.[10] In brief, Russian law allows all enterprises to write off debt which is more than 3 years outstanding. Notwithstanding, the utility is extremely reluctant to write off or establish a reserve for bad debt, believing instead that all debt is current and will be collected. The largest debtors are the local enterprises and the budgetary organizations. In most cases, the utility can convert the outstanding budgetary organization debt into a tax (or other type) of offset.

Cost of bill / collection. The costs related to billing and collection from general population customers -- costs experienced by intermediaries (MUVR) -- are not included in the tariff. This activity is a vital component of any communal service provider's ability to recover costs and must be considered as one of the primary costs of operating expenses. This cost should be included in the tariff regardless of whether the communal service provider handles billing and collection through its own internal operations. If another municipal enterprise acts as an intermediary, or if they competitively tender this activity to a third party their costs should be included as collection expense. Collections from population customers would significantly improve if the Pskov Vodokanal would engage in direct billing.

2.5 Revenue Requirements and Tariff Levels

In determining the Pskov Vodokanal's debt capacity, PADCO estimated the Pskov Vodokanal's future revenue requirements and related tariff projections associated with two loan scenarios. This section describes operational and financial projections for the Pskov Vodokanal over a 7 year period. The scenarios underlying the financial projections are detailed below, followed by a review of the Pskov Vodokanal's current

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[10] Ibid., and, Section 2, Paragraph 15 of the regulation (Approved by Decision No. 552) states, " In the composition of the extra-realization expenses there shall be included...sums of doubtful debts in settlements with other enterprises, and also individuals subject to reservation in conformity with legislation; losses from writing off debt receivables, for which the period of limitation has expired, and other debts which cannot be recovered."

and future revenue requirements. The loan projections follow the principles and assumptions described in the accompanying "Overview" Report.

2.5.1 Loan Scenarios

For Russian Water and Wastewater Project comparison purposes, this study considered two basic loans for the Pskov Vodokanal: 1) a loan for US $3.0 million; and, 2) a loan for US $6.0 million[11]. Under both loan scenarios, modest efficiency gains are realized from the improvements in its operations and water and wastewater provided decreases as demand management programs (i.e., billing metered consumption) are implemented. The details of the tariff cash flow for the two loans can be found in Appendix II: Loans Scenarios and Tariff Requirements. In the section below, tariff schedules for the two loan scenarios are compared.

2.5.2 Tariff Projections

In computing a new tariff level sufficient to cover production costs, debt service, and bad debts, it is worth drawing a distinction between the constant and variable components of the tariff cost structure. The distinction is made due to substantial differences in volatility of the two components. While the cost of the debt component can be projected into the future and will remain fixed with little variation over the life of the loan, other costs may vary within a considerably depending on overall production levels, internal operational efficiency, input costs, and the ability to collect payments.

Tables 3.4 and 3.5 present the 7-year financial projections and a discussion of the average cost recovery tariff level for both scenarios. Additional tariff details and debt service requirements are set out in Appendix II.

As is shown in Table 3.4, by incorporating a debt of US $3.0 million into the Pskov Vodokanal's tariff structure, the tariff will rise by about 244% over a seven year period. The two new components added to the structure of the tariff -- debt service payments and bad debts -- account for a significant portion of this tariff increase. It is worth emphasizing that the allowance for bad debts reduces the amount available for interest repayment. Should the Pskov Vodokanal improve its current collection practices, more out-of-profit moneys would be available for interest repayment.

[11] See Appendix II for further details.

Table 3.4
Estimated Average Tariff For US $3.0 million loan
(Rubles)

	ESTIMATED FULL COST RECOVERY 1996	1997	2000	2003
Estimated Total Expenses (000)	64,232,554	72,529,410	110,308,167	172,229,625
Average Cost per m3 of Water/ Wastewater	1,145	1,293	2,677	3,939
Full Cost Tariff per m3 of Water / Wastewater	1,511	1,707	3,534	5,200

Notes:
1) Estimated Total Expenses includes depreciation of leased city owned assets. It does not, however, include out-of-profit expenses such as bad debt write-offs, profit tax, and debt service interest payment.
2) Average cost of 1 m3 of water/wastewater does not include VAT.
3) Full cost average water/wastewater tariff includes 10% profitability and VAT.

The projected rise in the average tariff translates into tariff increases for all customer groups. Since the ability of enterprises and commercial organizations to cross subsidize residential consumers is already constrained by relatively high tariff levels, the most drastic increase would have to be borne by residential consumers. The scenario incorporating the tariff schedule for a debt of US $6.0 million indicates similar findings. Table 3.5 shows that by incorporating debt service for a US $6.0 million loan into the Pskov Vodokanal tariff structure, the tariff will rise by about 253% over a seven year period.

Table 3.5
Estimated Average Tariff -- US $6.0 million loan
(Rubles)

	ESTIMATED FULL COST RECOVERY 1996	1997	2000	2003
Estimated Total Expenses (000)	64,232,554	72,529,410	110,308,167	176,694,317
Average Cost per m3 of Water / Wastewater	1,145	1,293	2,677	4,041
Full Cost Tariff per m3 of Water / Wastewater	1,511	1,707	3,534	5,335

Notes:
1) Estimated Total Expenses includes depreciation of leased city owned assets. It does not, however, include out-of-profit expenses such as bad debt write-offs, profit tax, and debt service interest payment.
2) Average cost of 1 m3 of water/wastewater does not include VAT.
3) Full cost average water/wastewater tariff includes 10% profitability and 20% VAT.

As the Pskov Vodokanal steps up water loss reduction efforts and demand management is improved through metering and billing by actual consumption, a reduction in residential consumption is expected. An immediate tariff increase is still needed to achieve full cost-recovery. However, over the medium term, as the collection ratio improves, a gradual leveling of the tariff increase takes place. By the year 2003, the combined water/wastewater tariff under the two scenarios will be 5,200 and 5,335 rubles per m3, respectively.

2.5.3 Loan Feasibility

As stated above, two possible loan scenarios to the Pskov Vodokanal were analyzed: US $3.0 million and US $6.0 million. The enlarged charts in Appendices II-A and -B map the proposed tariff schedule against the forecast net after tax profit of the Pskov Vodokanal. Under the assumptions provided, i.e., 95% full collection and cash collection of at least 50% of billings, the Pskov Vodokanal appears able to afford such loan amounts.[12] If the Pskov Vodokanal is able to improve their collection performance, the crucial net after tax profit in both loan scenarios remain positive, indicating that there remains some upward flexibility with respect to loan size. Increasing the allowable profitability, currently set at 10% would also allow larger loan sizes to be potentially carried by the utility.

2.6 Reforming Current Tariff-Setting Practices

This section presents a set of recommendations and action plan for the Pskov Vodokanal corporate management and local/regional government policy-makers. A preferred tariff structure is described, followed by a description of other water/wastewater related charges that need to be introduced or modified. Finally, a brief description of specific actions and measurable targets involved in implementing new tariff policies are presented with further elaboration in the action plan schematic and chart that follows.

2.6.1 Preferred Tariff Structure

Cost-Recovery Pricing

Full cost recovery pricing should be the key of the Pskov Vodokanal's pricing policy. Tariffs should reflect the full marginal cost of water and sewerage service delivery and sustainability. Full cost pricing however, cannot be achieved unless bad-debt expenses, unaccounted for water, and the cost(s) of debt service are taken into account. Specific recommendations include:

- Identify a portion of accounts receivables as a bad debt expense. Bad debt expense can initially be calculated by identifying the total value of accounts that are greater than six months or more overdue. Customer profiles should be individually reviewed to determine whether there is an ability to pay the Pskov Vodokanal. A certain percentage of the accounts receivables can be calculated and defined as

[12] The Overview Report provides a detailed discussion of immediate action items required by all vodokanals in order realize their debt capacity abilities.

"bad debt expense". 13 The "bad debt expense" percentage (or value) should be incorporated into the normal tariff setting process. Bad debt allowances should be periodically reviewed (i.e., every quarter) to determine which accounts are still collectable and those that should be written off as bad debt. Service to bad debtor's should be turned off.

- Improve User Charge Collection and Enforcement. Some different ways in which collections can be increased include: notifying and then shutting off service for delinquent customers; requiring that meters be installed in new buildings; reducing in-kind payments; establishing automatic payment procedures from the bank account of customers; and, designing and implementing a system of fines.

- Include the full depreciation in the tariff. The Pskov Vodokanal's tariff structure currently includes a depreciation value based on only the assets that it owns and not for all of the assets which are used in its operation. The municipality, the owner of many of the assets used by the Pskov Vodokanal, provides a hidden subsidy to the Pskov Vodokanal and to the tariff calculation. In effect, not including the full depreciation of the water and sewerage assets in the tariff calculation artificially lowers the tariff, provides no incentive for conservation, and provides no mechanism where the cost of rehabilitation can be recouped.

Development of More Efficient Cost Accounting Systems.

Pskov Vodokanal has very good fundamental financial information. However, apparently the system is relatively inefficient with respect to understanding the true cost of the individual water or sewerage operations. The failure of understanding the true cost of the Pskov Vodokanal's products lies in its relatively inefficient computer system. Computers, and more importantly, software systems are not linked. The failure to work within one consolidated accounting software system results in a multiplicity of errors. Often times, information from one department is not even closely correlated with that of another department. A consolidated accounting software system would greatly enhance the productivity of numerous internal operations (accounts payable and receivable, accounting, customer service, etc.). A positive byproduct of a more accurate cost accounting system would be the potential for more accurate tariff calculations.

In accordance with current Russian legislation, the Accounting Department produces revenue adjusted monthly and annual balance statements. The expenses that the accounting department reports for tax purposes are adjusted to reflect only the income that they receive. The Vodokanal's use and application of profit are different from western accounting or financial practices. As previously stated in the Institutional Review, but restated here, the western concept of profit suggests a return on investment to investors after expenses have been paid. According to Section 2, Paragraph 13 of the Regulation for Expenses Incurred in the Production and Sale of Products Included in the Cost-Price of Products and for the Orders of Forming Financial Results Accounted in Profit Taxation (Approved by the Decision of the Government of Russia No. 522 (8/5/92), "Profit (loss) from the sale of products (work, services) and goods shall be determined as the difference between the revenues

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[13] It is recommended that a thorough evaluation of accounts receivable proceed at least every quarter.

received from the sale of the products (works, services) in current prices with the value-added tax and excises and the expenses on their production and sale. To minimize current projected tax obligations, many utilities do not record revenue transactions until some revenue are actually received. The utilities also adjust expenses accordingly.

Fifty percent Minimum Cash Requirement

The PADCO review of the Vodokanal's financial requirements indicates that the current level of cash collection (about 15 percent) is extremely low. In order to make timely debt repayments, and necessary operating expense payments, the Vodokanal will need to dramatically increase its level of cash collections to around 50 percent. The 50 percent cash requirement level assumes the following:

- Federal taxes must be paid in cash. VAT can be paid via offset arrangement.
- Payroll and other mandatory payments must also be made in cash.
- At a minimum, 70 percent of the electricity outlay must be in cash.
- Emergency costs and purchases of items outside the local area would require cash payment. Expenditures tied to repairs and contracting service are assumed to be at a very minimum 50 percent in cash.
- All debt service (interest plus principle) must be repaid in cash.

Bill Directly and Include Cost of Billing in Tariff Calculation.

The Pskov Vodokanal should bill the population directly to improve its collection ratio with this class of customer. The cost of billing directly should be included as a direct expense in all future tariff calculations.

Discontinue Barter/Offsets

The increased use of barter/offsets is leading to the demonetization of the local (and national) economy. Barter/offsets involve relatively high transaction costs that are currently not being recouped by the Pskov Vodokanal. The Pskov Vodokanal should discontinue the practice of barter/offsets or at the very minimum attach a surcharge for engaging in this practice.

APPENDIX I

Loan Scenario I $3 Million
Assumptions used in all loans
Loan Graph
Loan Scenario II $6 Million
Loan Graph

APPENDIX II

Table 1. Trial Balance for 1995
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Table 3. Connecting Table for Balance Sheet for 1995 and 1996
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Table 16. Accounts Payable for 1995
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Pskov Vodokanal — **COMPUTATION OF TARIFF LEVELS** — **Appendix I**

Scenario I $3 Million

(in thousands of Rubles)

	1996	1997	1998	1999	2000	2001	2002	2003	2004
Production Expenses:									
Personnel	10,027,069	11,531,129	13,260,799	15,249,919	17,537,406	20,168,017	23,193,220	26,672,203	30,673,033
Energy	12,472,322	14,343,170	16,494,646	18,968,843	21,814,169	25,086,294	28,849,239	33,176,624	38,153,118
Chemicals and Materials	7,791,394	8,960,103	10,304,119	11,849,736	13,627,197	15,671,276	18,021,968	20,725,263	23,834,052
Repairs	2,056,800	2,365,320	2,720,118	3,128,136	3,597,356	4,136,959	4,757,503	5,471,129	6,291,798
Taxes Other Than Profit (not Labor related)	7,473,356	8,220,692	9,453,795	10,871,865	12,502,644	14,378,041	16,534,747	19,014,959	21,867,203
Other Expenses	4,624,586	5,318,274	6,116,015	7,033,417	8,088,430	9,301,694	10,696,948	12,301,491	14,146,714
Billing and Collections	499,841	574,817	661,040	760,196	874,225	1,005,359	1,156,163	1,329,587	1,529,026
Depreciation (including)	19,287,186	21,215,905	24,398,290	28,058,034	32,266,739	37,106,750	42,672,762	49,073,677	56,434,728
Depreciation for Debt Coverage	0	0	0	0	0	2,696,383	3,019,949	3,382,343	3,788,224
- Depreciation of the 10% KVK Match						269,638	301,995	338,234	378,822
- Depreciation of VAT on Investments						593,204	664,389	744,115	833,409
Total Expenses	***64,232,554***	***72,529,410***	***83,408,822***	***95,920,145***	***110,308,167***	***130,413,617***	***149,868,883***	***172,229,625***	***197,930,128***
Volume of Water / Sewerage Sold (tm3)	56,098	56,098	50,488	40,391	41,198	42,022	42,863	43,720	44,137
Average Cost of Water/Sewer per m3	1,145	1,293	1,652	2,375	2,677	3,103	3,496	3,939	4,484
Full Cost Average Tariff per m3 (Including 10% Profitability)	1,260	1,422	1,817	2,612	2,945	3,414	3,846	4,333	4,933
- with VAT	1,511	1,707	2,181	3,135	3,534	4,097	4,615	5,200	5,919
Gross Revenue	***70,655,810***	***79,782,351***	***91,749,704***	***105,512,159***	***121,338,983***	***143,454,979***	***164,855,771***	***189,452,588***	***217,723,141***
Bad Debt Write-Off	*3,532,790*	*3,989,118*	*4,587,485*	*5,275,608*	*6,066,949*	*7,172,749*	*8,242,789*	*9,472,629*	*10,886,157*
Debt Service Interest Payment			773,834	1,733,389	1,941,396	2,174,363	2,435,287	2,727,521	2,454,769
Gross Profitability	***2,890,465***	***3,263,823***	***3,753,397***	***4,316,407***	***4,963,868***	***5,868,613***	***6,744,100***	***7,750,333***	***8,906,856***
Estimated Profit Tax (After Capital Investment Credit)	***505,831***	***571,169***	***656,844***	***755,371***	***868,677***	***1,027,007***	***1,180,217***	***1,356,308***	***1,558,700***
Net Profit (Including Capital Improvement Interest Credit)	***1,878,802***	***2,121,485***	***1,936,716***	***1,678,961***	***1,964,607***	***2,401,262***	***2,800,729***	***3,264,828***	***4,193,856***

Notes:

1) Costs associated with billing and collections estimated to be equal to 2% of general population billings

2) Russian Federation law allows for depreciation to be used to repay capital related loans if the item purchased has been placed on the balance sheet as an asset an asset
This computation assumes that this is the case

3) The 10% KVK match and the VAT associated with the project expenditures are amortized over the life of the loan

4) Russian Federation law allows for bad debt write-offs to be deducted from taxable income (5% of gross revenue is assumed to be written-off)

5) Russian Federation law requires that capital related interest be paid out of profit

Loan Assumptions

Pskov Vodokanal *Scenario I $3 Million*

Vodokanal Revenue	1996	1997	1998	1999	2000	2001	2002	2003	2004
Water Revenue	9,867,394								
Sewerage Revenue	15,059,279								
Other Income	65,386								
Ruble Exchange Rate	5100								
Vodokanal Profitability	10%	10%	10%	10%	10%	10%	10%	10%	10%
VAT	20%	20%	20%	20%	20%	20%	20%	20%	20%
10% VK - Matching	10%	10%	10%	10%	10%	10%	10%	10%	10%
Profit Tax	35%	35%	35%	35%	35%	35%	35%	35%	35%
Investment Tax Credit	18%	18%	18%	18%	18%	18%	18%	18%	18%

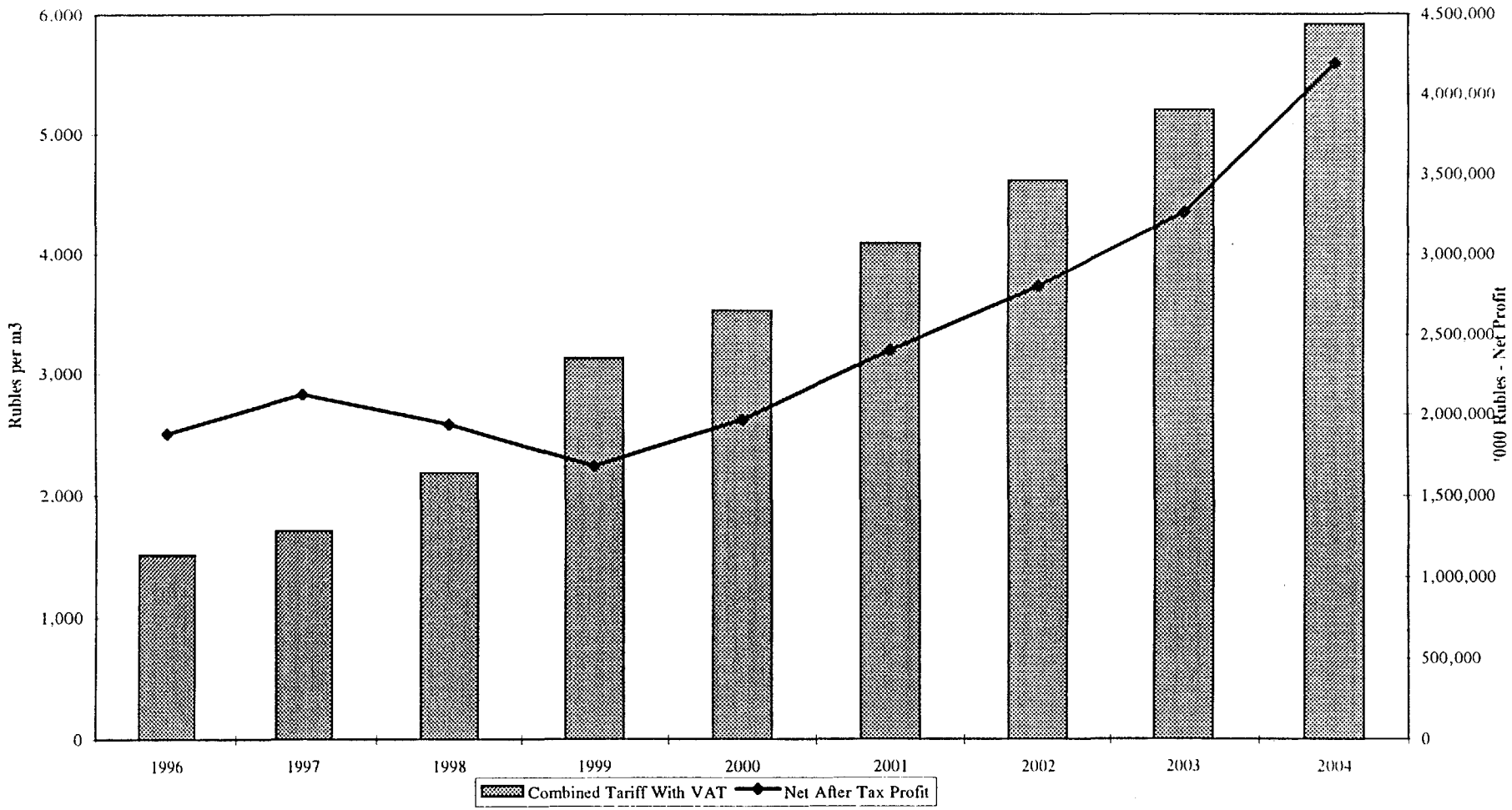
Expenses	1996 Value	1997	1998	1999	2000	2001	2002	2003	2004
Personnel	10,027,069	15%	15%	15%	15%	15%	15%	15%	15%
Energy	12,472,322	15%	15%	15%	15%	15%	15%	15%	15%
Chemicals and Materials	7,791,394	15%	15%	15%	15%	15%	15%	15%	15%
Repairs	2,056,800	15%	15%	15%	15%	15%	15%	15%	15%
Other Expenses	4,624,586	15%	15%	15%	15%	15%	15%	15%	15%
Taxes Other Than Profit (not Labor related)	7,473,356	15%	15%	15%	15%	15%	15%	15%	15%
Depreciation	19,287,186	10%	15%	15%	15%	15%	15%	15%	15%
Billing/Collection Fee	0	2%	2%	2%	2%	2%	2%	2%	2%
Total	63,732,713								

Exchange Rate:									
Ruble Exchange Rate	5,100								
Russian Inflation Forecast	15%	15%	15%	15%	15%	15%	15%	15%	15%
U.S. Inflation Rate Forecast	3%	3%	3%	3%	3%	3%	3%	3%	3%
Ruble Forecast		5,712	6,397	7,165	8,025	8,988	10,066	11,274	12,627

Volume of Water and Sewerage Sold (000 m3	1996	1997	1998	1999	2000	2001	2002	2003	2004
Water Volume	26,752	26,752	24,077	19,261	19,647	20,040	20,440	20,849	21,266
Sewerage Volume	29,346	29,346	26,411	21,129	21,552	21,983	22,422	22,871	22,871
% Change Water		0%	10%	20%	-2%	-2%	-2%	-2%	-2%
% Change Sewerage		0%	10%	20%	-2%	-2%	-2%	-2%	-2%
Bad Debt Write-Off	5%								

Debt Multiplier	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Conversion factor - '000 Rubles	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

PVK Average Tariff and Net After Tax Profit For Loan of $ 3 Million



Pskov Vodokanal — **COMPUTATION OF TARIFF LEVELS** — **Appendix I**

Scenario II $6 Million

(in thousands of Rubles)

	1996	1997	1998	1999	2000	2001	2002	2003	2004
Production Expenses:									
Personnel	10,027,069	11,531,129	13,260,799	15,249,919	17,537,406	20,168,017	23,193,220	26,672,203	30,673,033
Energy	12,472,322	14,343,170	16,494,646	18,968,843	21,814,169	25,086,294	28,849,239	33,176,624	38,153,118
Chemicals and Materials	7,791,394	8,960,103	10,304,119	11,849,736	13,627,197	15,671,276	18,021,968	20,725,263	23,834,052
Repairs	2,056,800	2,365,320	2,720,118	3,128,136	3,597,356	4,136,959	4,757,503	5,471,129	6,291,798
Taxes Other Than Profit (not Labor related)	7,473,356	8,220,692	9,453,795	10,871,865	12,502,644	14,378,041	16,534,747	19,014,959	21,867,203
Other Expenses	4,624,586	5,318,274	6,116,015	7,033,417	8,088,430	9,301,694	10,696,948	12,301,491	14,146,714
Billing and Collections	499,841	574,817	661,040	760,196	874,225	1,005,359	1,156,163	1,329,587	1,529,026
Depreciation (including)	19,287,186	21,215,905	24,398,290	28,058,034	32,266,739	37,106,750	42,672,762	49,073,677	56,434,728
Depreciation for Debt Coverage	0	0	0	0	0	5,392,766	6,039,897	6,764,685	7,576,447
- Depreciation of the 10% KVK Match						539,277	603,990	676,469	757,645
- Depreciation of VAT on Investments						1,186,408	1,328,777	1,488,231	1,666,818
Total Expenses	***64,232,554***	***72,529,410***	***83,408,822***	***95,920,145***	***110,308,167***	***133,972,842***	***153,855,215***	***176,694,317***	***202,930,584***
Volume of Water / Sewerage Sold (tm3)	56,098	56,098	50,488	40,391	41,198	42,022	42,863	43,720	44,137
Average Cost of Water/Sewer per m3	1,145	1,293	1,652	2,375	2,677	3,188	3,589	4,041	4,598
Full Cost Average Tariff per m3 (Including 10% Profitability)	1,260	1,422	1,817	2,612	2,945	3,507	3,948	4,446	5,058
- with VAT	1,511	1,707	2,181	3,135	3,534	4,208	4,738	5,335	6,069
Gross Revenue	***70,655,810***	***79,782,351***	***91,749,704***	***105,512,159***	***121,338,983***	***147,370,127***	***169,240,737***	***194,363,749***	***223,223,642***
Bad Debt Write-Off	*3,532,790*	*3,989,118*	*4,587,485*	*5,275,608*	*6,066,949*	*7,368,506*	*8,462,037*	*9,718,187*	*11,161,182*
Debt Service Interest Payment			1,547,669	3,466,778	3,882,791	4,348,726	4,870,573	5,455,042	4,909,538
Gross Profitability	***2,890,465***	***3,263,823***	***3,753,397***	***4,316,407***	***4,963,868***	***6,028,778***	***6,923,485***	***7,951,244***	***9,131,876***
Estimated Profit Tax (After Capital Investment Credit)	***505,831***	***571,169***	***656,844***	***755,371***	***868,677***	***1,055,036***	***1,211,610***	***1,391,468***	***1,598,078***
Net Profit (Including Capital Improvement Interest Credit)	***1,878,802***	***2,121,485***	***1,433,723***	***94,258***	***212,399***	***625,016***	***841,302***	***1,104,734***	***2,624,260***

Notes:

1) Costs associated with billing and collections estimated to be equal to 2% of general population billings

2) Russian Federation law allows for depreciation to be used to repay capital related loans if the item purchased has been placed on the balance sheet as an asset an asset This computation assumes that this is the case

3) The 10% KVK match and the VAT associated with the project expenditures are amortized over the life of the loan

4) Russian Federation law allows for bad debt write-offs to be deducted from taxable income (5% of gross revenue is assumed to be written-off)

5) Russian Federation law requires that capital related interest be paid out of profit

6) While the profit tax is set at 35% a capital investment credit is given to cover the debt service interest payment up to 50% of the pre-credit profit t edit profit tax

Loan Assumptions

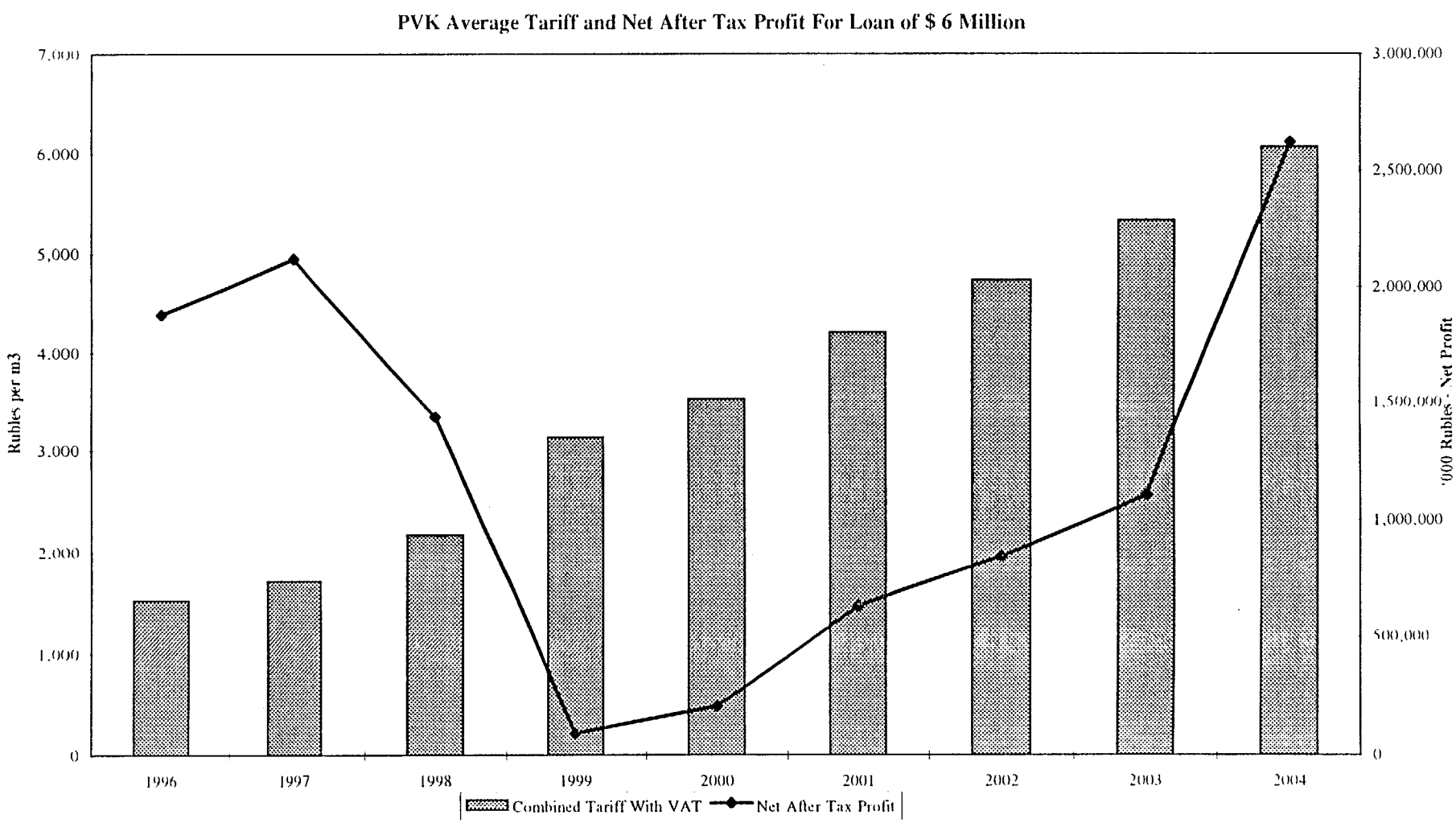
Pskov Vodokanal — *Scenario II $6 Million*

Vodokanal Revenue	1996	1997	1998	1999	2000	2001	2002	2003	2004
Water Revenue	9,867,394								
Sewerage Revenue	15,059,279								
Other Income	65,386								
Ruble Exchange Rate	5100								
Vodokanal Profitability	10%	10%	10%	10%	10%	10%	10%	10%	10%
VAT	20%	20%	20%	20%	20%	20%	20%	20%	20%
10% VK - Matching	10%	10%	10%	10%	10%	10%	10%	10%	10%
Profit Tax	35%	35%	35%	35%	35%	35%	35%	35%	35%
Investment Tax Credit	18%	18%	18%	18%	18%	18%	18%	18%	18%

Expenses	1996 Value	1997	1998	1999	2000	2001	2002	2003	2004
Personnel	10,027,069	15%	15%	15%	15%	15%	15%	15%	15%
Energy	12,472,322	15%	15%	15%	15%	15%	15%	15%	15%
Chemicals and Materials	7,791,394	15%	15%	15%	15%	15%	15%	15%	15%
Repairs	2,056,800	15%	15%	15%	15%	15%	15%	15%	15%
Other Expenses	4,624,586	15%	15%	15%	15%	15%	15%	15%	15%
Taxes Other Than Profit (not Labor related)	7,473,356	15%	15%	15%	15%	15%	15%	15%	15%
Depreciation	19,287,186	10%	15%	15%	15%	15%	15%	15%	15%
Billing/Collection Fee	0	2%	2%	2%	2%	2%	2%	2%	2%
Total	63,732,713								

Exchange Rate:									
Ruble Exchange Rate	5,100								
Russian Inflation Forecast	15%	15%	15%	15%	15%	15%	15%	15%	15%
U.S. Inflation Rate Forecast	3%	3%	3%	3%	3%	3%	3%	3%	3%
Ruble Forecast		5,712	6,397	7,165	8,025	8,988	10,066	11,274	12,627

Volume of Water and Sewerage Sold (000 m3	1996	1997	1998	1999	2000	2001	2002	2003	2004
Water Volume	26,752	26,752	24,077	19,261	19,647	20,040	20,440	20,849	21,266
Sewerage Volume	29,346	29,346	26,411	21,129	21,552	21,983	22,422	22,871	22,871
% Change Water		0%	10%	20%	-2%	-2%	-2%	-2%	-2%
% Change Sewerage		0%	10%	20%	-2%	-2%	-2%	-2%	-2%
Bad Debt Write-Off	5%								
Debt Multiplier	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Conversion Factor - '000 Rubles	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000



Prepared by PADCO, Inc.

Table 1 - Trial Balance for 1995

Appendix III

	Pskov Gorvodokanal (in '000 Rubles)	Opening Balance		Account Activity		Closing Balance	
		Debit	Credit	Debit	Credit	Debit	Credit
0 1	Fixed assets	2 525 534		6 539 080	256 458	8 808 156	
0 2 - 1	Accum.deprec.own Fixed assets		326 972	90 622	2 270 391		2 506 741
0 2 - 2	Accum.deprec.Leased Fixed assets		38 002 418	160 533 003	122 530 585		-
0 3	Long-term leased fixed assets	73 835 401		226 142 705	299 978 106	-	
0 4	Intangible assets			3 080		3 080	
0 5	Accumul. Depreciation of Intangible assets				1 158		1 158
0 6	Long-term financial investments			2 750		2 750	
0 7	Equipment for installation			724 420	96 637	627 783	
0 8	Capital investment	329 119		655 350	549 543	434 926	
1 0	Materials	358 813		6 042 087	4 645 863	1 755 037	
1 2	Low Value Consumables	104 705		678 235	357 395	425 545	
1 3	Depreciation of Low value assets		29 145	101 498	585 501		513 148
1 9	VAT	108 913		3 138 389	1 984 033	1 263 269	
2 0	Basic production			29 906 568	29 906 568		
2 6	General Economy Cost			6 995 721	6 995 721	-	
2 9	Maintain.production units and service facility	210		69 711	69 921		-
3 1	Deferred Expenses	5 021		14 217	8 575	10 663	
4 1	Goods	22 288		356 939	354 362	24 865	
4 2	Marketing margin		4 022	4 022	7 184		7 184
4 4	Distribution costs			69 921	69 921	-	
4 6	Sale of Products			24 685 930	24 685 930		
4 7	Sale of fixed assets			20 327	20 228	98	
4 8	Other revenue			52 702	52 702	-	
5 0	Cash(on hand)	11 233		6 818 058	6 822 414	6 877	
5 1	Cash at bank	209 255		14 566 828	14 776 083		
5 8	Short-term financial investments			1 373 962	1 373 962	-	
6 0	Settlements w/Suppliers-Contract.		2 905 401	16 181 485	19 681 242		6 405 158
6 2	Settlements w/Customer	7 797 925		34 557 850	21 075 681	21 280 093	
6 4	Payment for received advances			33 112	176 423		143 311
6 7	Settlements w/non-budget funds			59 037	401 224		342 187
6 8	Taxes		467 918	7 281 665	10 023 047		3 209 300
6 9	Settlements w/Social funds	86 454		1 291 783	3 485 254		2 107 017
7 0	Settlements w/personnel		93 181	7 299 909	7 594 384		387 656
7 1	Settlements w/Mgt.Personnel	37 510		610 953	602 657	45 806	
7 3	Settlements w/Personnal on other operations	301 948		776	109 372	193 352	
7 6	Settlements w/debtors and creditors	190 810	298 301	2 177 090	2 023 786	45 813	
7 9	Intra-organization payments			3 842	3 842		-
8 0	Profit and Loss			5 521 642	-	5 521 642	
8 1	Use of profit			10 210 467	10 210 467		
8 5	Authorized Capital		26 911	-			26 911
8 7-1	Additional Capital		4 338 917	343 784 230	362 971 042		23 525 729
87-2	Revaluation leased fixed assets			115 138 514	223 435 971		108 297 457
8 8	Retained Profit (uncovered loss)		1 876 728	5 068 261	3 191 533		-
9 0	Short-Term Loans			1 327 709	1 539 057		211 348
9 6	Target financing and receipts		3 900	112 537	1 171 346		1 062 710
9 7	Leasehold liabilities		37 551 324	(33 188 659)	(70 739 983)		0
0 0 1-1	*Leased Fixed Assets*			298 068 441		298 068 441	
0 0 1-2	*Accum.deprec.Leased Fixed assets*				160 533 003		160 533 003
0 0 1-3	*Surplus on Leasehold Fixed assets*						

Table 2 - Trial Balance for 1996

	Pskov Gorvodokanal (in '000 Rubles)	Opening Balance		Account Activity		Closing Balance	
		Debit	Credit	Debit	Credit	Debit	Credit
0 1	Fixed assets	8 808 156		15 436 274	7 471 463	16 772 967	
0 2	Accumulated Depreciation		2 506 741	1 005 626	4 772 085		6 273 200
0 4	Intangible assets	3 080		12 563	6 161	9 483	
0 5	Accumul. Deprec.of Intang. assets		1 158	3 080	11 405		9 483
0 6	Long-term financial investments	2 750		-	-	2 750	
0 7	Equipment for installation	627 783		-	48 615	579 168	
0 8	Capital investment	434 926		982 076	982 076	434 926	
1 0	Materials	1 755 037		8 588 685	7 491 928	2 851 794	
1 2 - 1	Low Value assets in stock	425 545		780 715	702 908	503 352	
1 2 - 2	Low Value Consumable			973 545	401 194	572 352	
1 3	Depreciation of Low value assets		513 148	401 194	670 331		782 285
1 6	Deviation of materials values			361 010	289 041	71 969	
1 9	VAT	1 263 269		2 041 059	3 082 190	222 138	
2 0 - 1	Basic production			39 557 444	39 557 444		
2 6	General Economy Cost	-		7 907 482	7 907 482	-	
2 9	Maintain.produc.units&service facility.			98 670	98 670		
3 1	Deferred Expenses	10 663		-	10 663	-	
4 1 - 1	Goods in stock			150 572	150 572	-	
4 1 - 2	Goods in retail trade	24 865		201 098	219 899	6 064	
4 2	Marketing margin		7 184	-	(6 626)		558
4 4	Distribution costs	-		18 230	18 230		
4 5	Shipped goods	21 280 093		54 577 720	48 027 501	27 830 312	
4 6 - 1	Sale of Products Water&Sewer.			48 126 694	48 126 694	-	
4 6 - 2	Sale of Products (other service)			230 842	230 842		-
4 7	Sale of fixed assets	98		1 026 841	1 026 841	98	
4 8	Other revenue	-		77 966	74 885	3 081	
5 0	Cash(on hand)	6 877		7 128 132	7 127 843	7 166	
5 1	Cash at bank			11 974 543	11 894 039	80 504	
5 5	Special accounts in bank			95 000	95 000	-	
5 8	Short-term financial investments	-		5 991 057	5 991 057	0	
6 0	Settlements w/Suppliers-Contract.		6 405 158	30 442 797	30 781 454		6 743 815
6 2	Settlements w/Customer			2 242	2 242		
6 4	Payment for received advances		143 311	691 599	957 880		409 592
6 7	Settlements w/non budget funds		342 187	1 039 842	1 445 382		747 727
6 8	Taxes		3 209 300	11 815 834	13 351 688		4 745 154
6 9	Settlements w/Social funds		2 107 017	3 298 157	5 939 799		4 748 659
7 0	Settlements w/personnel		387 656	7 264 637	7 643 060		766 079
7 1	Settlements w/Mgt. Personnel	45 806		584 884	618 211	12 478	
7 3	Settlements w/person.on other operat.	193 352		75	83 579	109 848	
7 6	Settlements w/debtors and creditors	45 813		3 843 059	5 331 731		1 442 858
7 6 - 3	Salary payments			15 757	15 956		199
7 9	Intra-organization payments		-	5 250	14 811		9 561
8 0	Profit and Loss	5 521 642		19 416 894	-	24 938 535	
8 1	Use of profit	-		21 625 236	21 625 236	-	
8 5	Authorized Capital		26 911	26 288	-		623
8 7 - 1	Additional Capital		23 525 729	3 531 315	14 486 091		34 480 505
87 - 2	Revaluation leased fixed assets		108 297 457	280 383 408	505 022 198		332 936 247
8 8	Retained Profit (uncovered loss)	-	-	5 730 909	5 730 909		-
9 0	Short-Term Loans		211 348	2 841 348	2 830 000		200 000
9 6	Target financing and receipts		1 062 710	263 615	225 000		1 024 094
0 0 1- 1	Leased Fixed Assets	298 068 441		569 790 498		867 858 939	
0 0 1- 2	Accum.deprec.Leased Fixed assets		160 533 003		298 429 824		458 962 827
0 0 1- 3	Surplus on Leasehold Fixed assets		29 238 180		59 346 278		88 584 458

Table 3 - Connecting Table for Trial Balance Sheets for 1995 and 1996

Pskov Gorvodokanal
(in '000 Rubles)

Code			Dec 31/94		Dec 31/95		Dec 31/96
01	Fixed assets	2,525,534		8,808,156		16,772,967	
0 0 1- 1	Leased Fixed Assets	73,835,401		298,068,441		867,858,939	
0 2 - 1	Accum.depreciation	-326972		(2,506,741)		(6,273,200)	
0 0 1- 2	Accum.deprec.Leased Fixed assets	-38002418		(160,533,003)		(458,962,827)	
			38,031,545		143,836,853		419,395,87
04	Intangible assets	-		3,080		9,483	
0 5	Accumul. Deprec.of Intang. assets	-		(1,158)		(9,483)	
			-		1,922		
06	LT investments		-		2,750		2,75
0 7	Equipment for installation		-		627,783		579,16
0 8	Capital investment		329,119		434,926		434,92
	CURRENT ASSETS						
10	Stores - materials	358,813		1,755,037		2,851,794	
12	Stores - consumables	104,705		425,545		1,075,704	
13	Acc.dep.low val assets	(29,145)		(513,148)		(782,285)	
16	Deviation of materials values	-				71,969	
4 1	Goods	22,288		24,865		6,064	
	Total inventories	**456,661**		**1,692,300**		**3,223,246**	
45,62	Settle.customers	7,797,925		21,280,093		27,830,312	
	Total accounts receivable	**7,797,925**		**21,280,093**		**27,830,312**	
19	VAT	108,913		1,263,269		222,138	
3 1	Deferred Expenses	5,021		10,663			
4 7	Sale of fixed assets			98		98	
48	Realization- others					3,081	
71	Settle.salaries	37,510		45,806		12,478	
73	Settle.personnel	301,948		193,352		109,848	
76	Settle.Drs & Crs			45,813			
	Total other receivable	**453,392**		**1,559,001**		**347,643**	
50	Cash in hand	11,233		6,877		7,166	
51	Cash at bank	209,255				80,504	
	Total bank and cash balances	**220,488**		**6,877**		**87,670**	
		8,928,466		**24,538,271**		**31,488,871**	
	DEDUCT: CURRENT LIABILITIES						
60	Settle.contractors	2,905,401		6,405,158		6,743,815	
76	Settle.Drs & Crs	107,491				1,442,858	
76 - 3	Salary payments	-				199	
79	Intra-organization payments	-				9,561	
	Total accounts payable	**3,012,892**		**6,405,158**		**8,196,434**	
90	Loans	-		**211,348**		**200,000**	
96	Target financing and receipts	3,900		**1,062,710**		**1,024,094**	
70	Settle.labor	93,181		**387,656**		**766,079**	
67	Non budget tax	-		342,187		747,727	
68	Income tax - budget	467,918		3,209,300		4,745,154	
69	Settle.social insurance	(86,454)		2,107,017		4,748,659	
	Total social taxes payable	**381,464**		**5,658,503**		**10,241,539**	
64	Payment for received advances	-		143,311		**409,592**	
		3,491,437		**13,868,686**		**20,837,738**	
	Working capital		**5,437,029**		**10,669,595**		**10,651,13**
			43,797,693		**166,573,819**		**431,063,86**
	FINANCED BY:						
85	Authorized capital		26,911		26,911		62
87 - 1	Revaluation own fixed assets		4,338,917		23,525,729		34,480,50
87 - 2	Revaluation leased fixed assets		-		108,297,457		332,936,24
9 7	Surplus on Leasehold Fixed assets		37,551,324		29,238,180		88,584,49
4 2	Marketing margin		4,022		7,184		59
80	Profit & Losses		-		(5,521,642)		(24,938,53
8 8	Retained Profit (uncovered loss)		1,876,728				
	Total		43,797,902		166,573,819		431,063,86

Table 4 - Balance Sheet with Leased Municipal Assets and Depreciation

Pskov Gorvodokanal
(in 000 Rubles)

Code		Notes		Dec 31/94		Dec 31/95
0 1	Fixed assets	1	2,525,534		8,808,156	
001-1	Leased Fixed assets	2	73,835,401		298,068,441	
0 2 - 1	Acc.depreciation	3	(326,972)		(2,506,741)	
001-2	Acc.deprec. of Leased Fixed a	4	(38,002,418)		(160,533,003)	
				38,031,545		**143,836,853**
04,05	Intangible assets					**1,922**
0 6	LT investmnts					**2,750**
0 7	Equipment for installation					**627,783**
0 8	Capital investment			**329,119**		**434,926**
	CURRENT ASSETS					
10,12,41,16,1	Inventories		**456,661**		**1,692,300**	
62, 007	Accounts receivable		**7,797,925**		**21,280,093**	
19,31,47,48,	Other receivables		**453,392**		**1,559,001**	
50,51,55,58	Cash and bank		**220,488**		**6,877**	
			8,928,466		**24,538,271**	
	DEDUCT: CURRENT LIABILITIES					
60,76,76 - 03	Accounts payable		**3,012,892**		**6,405,158**	
9 0	Loans				**211,348**	
9 6	Target financing and receipts		**3,900**		**1,062,710**	
7 0	Settle.labor		**93,181**		**387,656**	
67,68,69	Social & taxes payable		**381,464**		**5,658,503**	
6 4	Payment for received advances				**143,311**	
			3,491,437		**13,868,686**	
	Working Capital			**5,437,029**		**10,669,585**
	TOTAL NET ASSETS			**43,797,693**		**155,573,819**
	FINANCED BY:					
8 5	Authorized capital			26,911		26,911
8 7 - 1	Revaluation own fixed assets			4,338,917		23,525,729
8 7 - 2	Revaluation of leased fixed assets					108,297,457
9 7	Surplus on Leashold Fixed assets			37,551,324		29,238,180
4 2	Marketing margin			4,022		7,184
8 0	Profit & Losses					(5,521,642)
8 8	Retained Profit (uncovered loss)			1,876,728		
	Total			**43,797,902**		**155,573,819**

Table 5 - Balance Sheet with Leased Municipal Assets Desember 31, 1996

Pskov Gorvodokanal
(in '000 Rubles)

Code		Notes		Dec 31/96
0 1	Fixed assets	1	16,772,967	
001-1	Leased Fixed assets	2	867,858,939	
0 2 - 1	Accum.depreciation	3	(6,273,200)	
001-2	Accum.deprec. Leased Fixed asse	4	(458,962,827)	
				419,395,879
04,05	Intangible assets			**0**
0 6	LT investmnts			**2,750**
0 7	Equipment for installation			**579,168**
0 8	Capital investment			**434,926**
	CURRENT ASSETS			
10,12,41,16,13,	Inventories		**3,223,246**	
62,007	Accounts receivable		**27,830,312**	
19,31,47,48,71,7	Other receivables		**347,643**	
50/51/55/58	Cash and bank		**87,670**	
			31,488,871	
	DEDUCT: CURRENT LIABILITIES			
60,76,76 - 03,79	Accounts payable		**8,196,434**	
9 0	Loans		**200,000**	
9 6	Target financing and receipts		**1,024,094**	
7 0	Settle.labor		**766,079**	
67,68,69	Social & taxes payable		**10,241,539**	
6 4	Payment for received advances		**409,592**	
			20,837,738	
	Working Capital			**10,651,133**
	TOTAL NET ASSETS			**431,063,857**
	FINANCED BY:			
8 5	Authorized capital			623
87 - 1	Revaluation own fixed assets			34,480,505
87 - 2	Revaluation leased fixed assets			332,936,247
9 7	Surplus on Leasehold Fixed assets			88,584,458
4 2	Marketing margin			558
8 0	Profit & Losses			(24,938,535)
	Total			**431,063,856**

Table 6 - Notes of Accounts

Pskov Gorvodokanal (in '000 Rubles)	1995	1996
Fixed Assets		
NOTE 1		
Own Fixed Assets		
Ledger balance at January 1 , 1995/1996	2,525,534	8,808,156
Purchases during year	1,028,649	976,471
Transferred free of city	1,808,025	
Reduction in current assets	(236,229)	(1,420,240)
Assets write off	(20,228)	(5,030,392)
Sales of Fixed assets		(1,020,831)
Revaluation in 1995	3,702,406	
Revaluation in 1996		14,459,803
Ledger balance at December 31, 1995/1996	8,808,156	16,772,967
NOTE 2		
Leased Fixed Assets		
Ledger balance at January 1 , 1995/1996	73,835,401	298,068,441
Purchases during year	2,706,734	64,768,300
Revaluation in 1995	223,435,971	
Revaluation in 1996		505,022,198
Reversal transaction	(1,909,665)	
Ledger balance at December 31, 1995/1996	298,068,441	867,858,939
Accumulated Depreciation		
NOTE 3		
Accumulated Depreciation own Fixed Assets		
Ledger balance at January 1 , 1995/1996	326,972	2,506,741
Depreciation on 1995 revaluation	1,564,843	
Depreciation on 1996 revaluation		3,531,315
Depreciation for the year	705,548	1,240,770
Changes in case fixed assets lived	(90,622)	(1,005,626)
Ledger balance at December 31, 1995/1996	2,506,741	6,273,200
NOTE 4		
Accumulated Depreciation Leased Fixed Assets		
Ledger balance at January 1 , 1995/1996	38,002,418	160,533,003
Depreciation on 1995 revaluation	115,138,514	
Depreciation on 1996 revaluation		280,383,408
Depreciation for the year	7,392,071	18,046,416
Ledger balance at December 31, 1995/1996	**160,533,003**	**458,962,827**

Table 7 - Profit and Loss Statement

Code	(in '000 Rubles)		1995
62 - 68	Water and Wastewater Revenu (without VAT)		38,305,499
42,47,48	Other revenues		80,114
7 6	Subsidy		251,000
			38,636,613
	DEDUCT: Expenses		
6 0	Energy	7,743,462	
6 0	Supplies	1,853,132	
7 0	Salaries	7,326,440	
6 9	Social Taxes	3,374,224	
67,76	Mandatory payments to non-budgetary funds	896,144	
10,12 .	Chemicals and Materials	4,469,355	
2 6	Workshop	2,390,491	
2 6	G&A	424,558	
	Other	331,799	
			28,809,605
	NET PROFIT BEFORE DEPRECIATION		9,827,008
0 2	Depreciation own fixed assets		(705,548)
0 0 1- 2	Depreciation leased fixed assets		(7,392,072)
	NET PROFIT AFTER DEPRICIATION		1,729,388
2 9	Non-production expenses		(69,921)
8 8	Fines for late payment of taxes		(3,123,876)
8 8	Retained Profit		(1,895,385)
8 1	Profit tax for the year		(2,112,847)
8 8	Other		(49,000)
	NET PROFIT FOR THE YEAR		(5,521,642)

Table 8 - Profit and Loss Account for 1996

Pskov Gorvodokanal
(in '000 Rubles)

Code			1996
62 - 68	Water and Waterwaste Revenue (without VAT)		**47,815,961**
42,46 - 02,47,	Other revenues		326,942
			48,142,903
	DEDUCT: Expenses		
60,76	Energy	12,472,322	
60,76	Supplies	2,653,183	
7 0	Salaries	7,242,944	
6 9	Social Taxes	2,784,125	
67,76	Mandatory payments to non-budgetary fu	3,231,481	
10,12 .	Chemicals and Materials	7,791,394	
2 6	Workshop	2,112,226	
2 6	G&A	808,707	
	Other	1,008,600	
		----------	40,104,982
	NET PROFIT BEFORE DEPRECIATION		8,037,921
0 2	Depreciation own fixed assets		(1,240,770)
0 0 1- 2	Depreciation leased fixed assets		(18,046,416)
	NET PROFIT AFTER DEPRECIATION		(11,249,265)
2 9	Non-production expenses		(98,670)
8 8	Fines for late payment of social funds and taxes		(3,533,120)
8 8	Retained Profit		(1,486,192)
8 1	Profit tax for the year		(2,338,050)
8 8	Other		(711,597)
	NET PROFIT FOR THE YEAR		**(19,416,894)**

Table 9 - Sources and Uses of Funds

Pskov Gorvodokanal *(in '000 Rubles)*	1995	1996
SOURCES OF FUNDS		
Net profit for year before depreciation	*7714160.7*	**1,455,154**
Add:		
Increase in accounts payable	3,392.266	**1,791,276**
Increase in loans	211.348	**-**
Increase in salaries payable	294.475	**378,423**
Increase in taxes payable	5,277.040	**4,583,036**
Increase in other payables	143.311	**266,281**
Increase target finansing	1,058.810	**-**
Decrease in other receivables	-	**1,211,358**
Decrease in cash&bank balances	213.611	**-**
Decrease capital investments	-	**48,615**
Total	**18,305,022**	**9,734,143**
USES OF FUNDS		
Increase in intangible assets	1.922	**-**
Increase in inventories	1,235.639	**1,530,946**
Increase in accounts receivable	13,482.169	**6,550,219**
Increase in other receivable	1,105.609	**-**
Increase in cash-bank balances	-	**80,793**
Increase capital investments	733,590	**-**
Increase LT investments	2.750	**-**
Purchase of fixed assets	1,028.649	**976,471**
Decrease Authorized capital		**26,288**
Decrease in loans		**11,348**
Decrease target financing		**38,616**
Total	**17,590,328**	**9,214,681**
Suspetion	***714,694***	***519,462***
% Dufference	***4%***	***5%***

Table10 - Combined Water and Sewerage Revenue Analysis

Pskov Gorvodokanal
(in '000 Rubles)

	1995	Population	Budgetary Organizati	Industries	Others
+ Total Billed (Water and Sewerage)	34,142,022	7,150,252	7,123,724	#########	-
VAT	6,966,061	1,162,831	1,531,601	4,271,629	
+ Other Income	80,114				80,114
- Collected					
- Cash	13,249,792	2,816,558	3,205,019	7,223,056	5,159
- Received via off-sets	3,040,159	1,633,402	1,406,756	-	-
- Received via barter	10,042,116	-	2,719,656	7,274,917	47,543
- Received Promissory Notes/T-Notes	*1373962*	-	1,373,962	-	-
= Accounts Receivables (including	**13,482,168**	**3,863,122**	**(50,068)**	**9,641,703**	**27,412**

Table 11 - 1996 Combined Water and Sewerage Revenue Analysis

Pskov Gorvodokanal
(in'000 Rubles)

	1996	Population	Budgetary Organizations	Industries	Others
+ Total Billed (Water and Sewerage)	45 481 433	11 826 035	15 290 591	18 364 808	-
VAT	9 096 287	2 365 207	3 058 118	3 672 962	
+ Other Income	326 942	-	-	-	326 942
- Collected	48 326 989				
- Cash	8 351 325	2 286 515	1 394 017	4 441 623	229 170
- Received VAT (Cash)	1 624 431	457 303	278 803	888 325	-
- Received via off-sets	5 993 810	4 468 661	1 505 708	-	19 441
- Received via VAT off-sets	1 229 415	928 273	301 142	-	-
- Received via barter	22 615 883	4 964 156	705 998	16 867 398	78 331
- Received via VAT barter	4 512 999	992 831	146 690	3 373 478	-
- Received Promissory Notes/T-Notes	3 295 105	531 667	1 533 855	1 229 583	
- Received via VAT Note	704 021	106 333	306 771	290 917	-
= Accounts Receivables (including VAT)	**6 577 673**	**(544 498)**	**12 175 724**	**(5 053 554)**	**0**

Table 12 - Total Water and Sewerage Accounts Receivable for1995

Pskov Gorvodokanal
(in '000 Rubles)

	Code		1995	Population	Budgetary Organizations	Industries	Others
+	6 2	Accounts Receivables - Beginning of the Period	7 797 925	954 288	2 010 063	4 833 574	-
+	6 2	Water & Sewerage Services Billed	41 108 083	8 313 083	8 655 325	24 139 675	-
+	47, 48	Other Revenues	80 114				80 114
-	50, 51	Received on Bank Accounts or Cash	13 249 792	2 816 558	3 205 019	7 223 056	5 159
-	67, 68, 69	Received via off-sets	3 040 159	1 633 402	1 406 756	-	-
-	6 0	Received via barter	10 042 116	-	2 719 656	7 274 917	47 543
-	5 8	Received Promissory Notes/T-Notes	1 373 962	-	1 373 962	-	-
=	**6 2**	**Accounts receivables (including VAT) - end of period**	**21 280 093**	**4 817 410**	**1 959 995**	**14 475 277**	**27 412**

Table 13 - Total Water and Sewerage Accounts Receivables Analysis

PSKOV Gorvodokanal
(in `000 Rubles)

	Code		1996	Population	Budgetary Organizations	Industries	Others
+	4 5	Accounts Receivables - Beginning of the Period	21,280,094	4,817,410	1,959,995	14,475,277	27,412
+	4 5	Water&Sewerage Services Billed	54,577,720	14,191,242	18,348,709	22,037,770	-
+	46 - 02,47,48	Other Revenue	326,942				326,942
-	50,51	Received on Bank Accounts or Cash	9,975,756	2,743,818	1,672,820	5,329,947	229,170
-	67,68,69	Received via off-sets	7,223,225	5,396,935	1,806,850	1,806,850	19,441
-	60,76	Received via barter	27,128,882	5,956,987	852,688	20,240,876	78,331
-	5 8	Received Promissory Notes/T-Notes	3,999,126	638,000	1,840,626	1,520,500	-
=	0 0 7	Accounts receivables (with VAT) - end of period	27,857,767	4,272,912	14,135,720	9,421,723	0

Table 14 - Aging of Accounts Receivable for 1995

Pskov Gorvodokanal
(in '000 Rubles)

	> 365 days	181 - 365 days	< 181 days	Total
+ Accounts receivables	**1,733,735**	**6,298,019**	**13,248,339**	**21,280,093**
Including				
population			4,817,410	4,817,410
budgetary organisations	698,778	567,198	694,019	1,959,995
industries	1,034,957	5,730,821	7,736,910	14,502,688
others	-			-
- Bad debts (estimate)	**1,034,957**	**267,530**	**278,430**	**1,580,917**
including				
population				-
budgetary organisations				-
industries	1,034,957	267,530	278,430	1,580,917
others				-
= Accounts receivables with a Good Probability of Collection	**698,778**	**6,030,489**	**12,969,909**	**19,699,176**
including				
population	-	-	4,817,410	4,817,410
budgetary organisations	698,778	567,198	694,019	1,959,995
industries	-	5,463,291	7,458,480	12,921,771
others	-	-	-	-

Table 15 - Aging of Accounts Receivable for 1996

Pskov Gorvodokanal
(in '000 Rubles)

	> 365 days	181 - 365 days	< 181 days	Total
+ **Accounts receivables**	**9,949,380**	**3,058,367**	**14,822,565**	**27,830,312**
Including				
population		245,800	4,027,071	4,272,871
budgetary organisations	9,093,323	1,662,247	3,380,149	14,135,719
industries	856,057	1,150,320	7,415,345	9,421,722
others	-	-	-	-
- **Bad debts (estimate)**				856,057
including				
population	-	-	-	-
budgetary organisations	-	-	-	-
industries	856,057	-	-	856,057
others	-	-	-	-
= **Accounts receivables with a Good Probability of Collection**				**26,974,255**
including				
population	-	245,800	4,027,071	4,272,871
budgetary organisations	9,093,323	1,662,247	3,380,149	14,135,719
industries	-	1,150,320	7,415,345	8,565,665
others	-	-	-	-

Table 16 -Accounts Payable for 1995

Pskov Gorvodokanal
(in '000 Rubles)

Code		1995	Method of Payment: Cash	Barter	Off-sets	Securities/Promissary Notes
	Accounts payable at the beginning of the period					
	including:					
	energy	552,302				
	labour	93,181				
	materials	67,130				
	maintenance and repairs	-				
	social insurance	(86,454)				
	taxes	467,918				
	Mandatory payments	-				
	other	2,670,725				
	Subtotal	3,764,801				
	Expenses of the vodokanal (the sum of the liabilities for the period excluding					
	+ ***depreciation)***					
	including:					
6 0	*energy*	7,743,462				
7 0	*labour*	7,326,440				
6 0	*materials*	4,469,355				
6 0	*maintenance and repairs*	1,415,925				
	social insurance					
6 9	*(pension/medical)*	3,374,224				
6 8	taxes	8,039,307				
	Mandatory payments					
67,76	to non-budgetary	896,144				
6 0	other	5,598,361				
	Subtotal	38,863,218				
	- ***Accounts paid***					
	including:					
	energy	3,588,257	693,357	2,894,900	-	-
	labour	7,031,965	7,031,965	-	-	-
	materials	3,956,775	3,026,715	930,060	-	-
	maintenance and repairs	1,415,925	-	1,415,925	-	-
	social insurance					
	(pension/medical)	1,180,753	1,176,973	-	3,780	-
	taxes	5,297,925	928,384	-	2,995,579	1,373,962
	Mandatory payments to					
	non-budgetary funds	553,957	513,159	-	40,798	-
	other	6,480,787	1,010,011	5,470,776	-	-
	Subtotal	29,506,343	14,380,563	10,711,661	3,040,157	1,373,962
	Accounts payable at the end of the period					
	including:					
	energy	4,707,507				
	labour	387,656				
	materials	579,710				
	maintenance and repairs	-				
	social insurance					
	(pension/medical)	2,107,017				
	taxes	3,209,300				
	Mandatory payments					
	to non-budgetary	342,187				
	other	745,462				
	Subtotal	12,078,839				

Table 17 - Accounts Payable for 1996

Pskov Gorvodokanal
(in '000 Rubles)

Code		1996	Method of Payment: Cash	Barter	Off-sets	curity/Promissary Notes
	Accounts payable at the beginning of the period					
	including:					
	energy	4,707,507				
	labour	387,656				
	materials	579,710				
	maintenance and repairs					
	social insurance	2,107,017				
	taxes	3,209,300				
	non budgetary fund	342,187				
	other	745,462				
	Subtotal	12,078,839				
	+ ***Expenses of the vodokanal (the sum of the liabilities for the period excluding depreciation)***					
6 0	*energy*	12,472,322				
7 0	*labour*	7,242,944				
6 0	*materials*	7,791,394				
6 0	*maintenance and repairs*	2,056,800				
6 9	*social insurance*	5,939,799				
6 8	*taxes*	9,477,255				
67.76	Mandatory payments to non-	3,231,481				
60.76	other	6,822,375				
	Subtotal	55,034,370				
	- ***Accounts paid***					
	including:					
	energy	14,572,816	-	14,572,816	-	-
	labour	6,864,521	6,864,521	-	-	-
	materials	4,537,413	510,140	4,027,273	-	-
	maintenance and repairs	2,056,800	-	2,056,800	-	-
	social insurance	3,298,157	1,325,726	-	1,972,431	-
	taxes	7,941,401	554,033	-	4,547,310	2,840,058
	Mandatory payments to non-	1,383,083	239,040	-	684,043	460,000
	other	7,264,726	814,036	4,482,190	-	1,968,500
	Subtotal	47,918,917	10,307,496	25,139,079	7,203,784	5,268,558
	= ***Accounts payable at the end of the period***					
	including:					
	energy	2,607,013				
	labour	766,079				
	materials	3,833,691				
	maintenance and repairs	-				
	social insurance	4,748,659				
	taxes	4,745,154				
	Mandatory payments to non-	2,190,585				
	other	303,111				
	Subtotal	19,194,292				

Table 18 - Operating Expense Analysis (Water and Sewerage) for 1995

Pskov Gorvodokanal (in '000 Rubles)	
+ **Personnel Costs:**	
Wages (Excluding Administration)	**7,326,440**
Pension	**2,568,319**
Medical Insurance Fund	**263,751**
Social Insurance Fund	**395,627**
Employment Fund	**146,527**
+ **Energy**	**7,743,462**
+ **Materials and Chemicals**	**4,469,355**
+ **Repairs (materials and subcontractors work)**	**1,415,925**
+ **Mandatory payments to non-budgetary funds**	**896,144**
+ **Other Expenses:**	
MUVR's service	**244,015**
Mechanics Workshop	**2,390,491**
Lease payment	**193,192**
Other	**331,799**
G&A (Administration, Overhead)	**424,558**
= **Subtotal production expenses**	**28,809,605**
+ **Non-production expenses**	**69,921**
+ **Taxes:**	
Profit Tax	**2,112,847**
Other	**49,000**
Fines for late payment of taxes	**3,123,876**
+ **Depreciation own fixed assets**	**705,548**
+ **Depreciation leased fixed assets**	**7,392,072**
= **Total Expenses (Including Depreciation)**	**42,262,869**

Table 19 - Operating Expense Analysis (Water and Sewerage) for 1996

Pskov Gorvodokanal (in '000 Rubles)	
+ **Personnel Costs:**	
Wages (Excluding Administration)	7,242,944
Pension	2,025,196
Medical Insurance Fund	260,204
Social Insurance Fund	390,307
Employment Fund	108,418
+ **Energy**	12,472,322
+ **Materials and Chemicals**	7,791,394
+ Repairs (materials and subcontractors work)	2,056,800
+	
Mandatory payments to non-budgetary funds	3,231,481
+ **Other Expenses:**	
MUVR's service	596,383
Mechanics Workshop	2,112,226
Lease payment	-
Other	1,008,600
G&A (Administration, Overhead)	808,707
= **Subtotal production expenses**	40,104,982
+ **Non-production expenses**	98,670
+ **Taxes:**	
Profit Tax	2,338,050
Fines for late payment of social funds and taxes	3,533,120
Other	711,597
+ **Depreciation own fixed assets**	1,240,770
+ **Depreciation leased fixed assets**	18,046,416
= **Total Expenses (Including Depreciation)**	66,073,605

Prepared by PADCO, Inc.

Table 20 - Ratio Analysis for 1995 and 1996

Pskov Gorvodokanal
(in '000 Rubles)

	1995	1996
BALANCE SHEET RATIOS:		
Revenue as a % of fixed assets (net)	27 %	11 %
Revenue as a % of net total assets	25 %	11 %
Current assets as a % of fixed assets (net)	17 %	8 %
Accounts receivable as a % of revenue	56 %	58 %
Average collection period (accounts receivable	7 months	7 months
Accounts payable as a % of expenses	37 %	42 %
Average payment period (accounts payable)	5 months	5 months
LIQUIDITY RATIOS:		
Inventories as a % of current assets	7 %	10 %
Accounts receivable as a % of current assets	87 %	88 %
Current assets as a ratio of current liabilities	1.8 times	1.5 times
Cash/bank balances as a ratio of current liabili	0.00 times	0.0 times
Cash collection as a % of total collection	48 %	0.2 %
PROFITABILITY RATIOS:		
Net profit after depreciation as a % of revenue	5 %	Loss
Net profit for the year as a % of revenue	Loss	Loss
Fines for late payment of taxes as a % of reve	8 %	7 %
Net profit as a % of total net assets (return on capital employed)	Loss	Loss