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**BURNS AND ROE ENTERPRISES, INC.**

**DELIVERY ORDER No. 18**

**NATURAL GAS DISTRIBUTION  
GAS METER PROJECT**

**Final Report**

**RUSSIA**

**March 18, 1998**

**Prepared by:** Burns & Roe Enterprises, Inc

**Submitted to:** U.S. Agency for International Development

**Contract No** CCN-0002-Q-00-3154-00  
Energy Efficiency and Market Reform Project  
Delivery Order No 18  
Natural Gas Distribution  
Gas Meter Project --- Final Report

## 1 0 INTRODUCTION

To reinforce the previous assistance given to the Government of Russia (GOR) in energy efficiency, USAID made funds available for the procurement of U S supplied residential gas meters. These gas meters provided front end support to the World Bank's (WB) anticipated \$106 million loan for gas distribution efficiency improvement in the city of Volgograd. The meters reinforced the Commodities Import Program (CIP), District Heating System Upgrades, and work of Brooklyn Union Gas (BUG), via a USAID partnership program, in developing a gas metering program for the City of Vladimir.

Burns & Roe was authorized to do this work under Delivery Order No 18, Natural Gas Distribution. This work was performed from October 1995 to February 28, 1997.

## 2 0 BACKGROUND

The energy strategy of the GOR has placed a significant emphasis on energy efficiency improvement. The rampant waste that occurred under the former Soviet command economy justifies this, which emphasized production and lacked proper pricing strategies for energy. USAID had two major approaches to help Russia: 1) provide technology that promoted energy efficiency and, 2) provide technical assistance in defining where and how to best promote energy efficiency.

Russia uses large quantities of natural gas domestically, about 407 billion cubic meters (BCM). Further, natural gas sales to Europe provide a significant flow of hard currency into Russia. Therefore, reducing domestic gas usage through energy efficiency will enhance the balance of payments in Russia. Since the WB was committed to a substantial loan and the CIP was demonstrating energy efficiency projects, USAID decided to proceed with the supply of residential gas meters to Vladimir (a CIP recipient city) and Volgograd (a World Bank City). These U S gas meters offer distinct advantages over domestic meters, greatly reducing gas usage due to their higher accuracy and better reliability, and they are much more compact for installation in residences.

## 3 0 DESCRIPTION OF WORK PERFORMED

The objective of this DO was to procure about 1,000 meters for residential consumers in single family homes/apartments in the cities of Volgograd and Vladimir. This procurement included close coordination with the WB and BUG.

Specifically, BREI performed the following activity

Interfaces--

- Initially met with the WB (Paul Gallagher, Gary Stuggins, Peggy Wilson) and BUG (Tony DeBrita) to understand the technical work already performed for Volgograd and Vladimir. Continued communications during the project to obtain concurrence regarding the types and quantities of meters being supplied
- Communicated directly with our counterparts in Volgograd (Mr Kulik) and Vladimir (Mr Vladimir I Tarasenko) to define their exact specifications and needs for the gas meters and obtain their approval
- Another significant and helpful interface was with the USEA. USEA had developed the partnership between BUG and Vladimir. This partnership was directly related to the improvement of the gas distribution system. USEA provided help with communications, obtaining data, and monitoring progress

Procurement--

- Reviewed existing gas meter specifications. Coordinated technical requirements with the potential suppliers
- Prepared specifications
- Prepared requisitions for procurement
- Obtained approval of the requisitions
- Procured and delivered equipment
- Assisted with clearance through customs

Monitoring--

Monitoring for this DO was to be performed by the Russian counterparts. In Vladimir, because of the partnership with BUG, the Russian counterparts had developed a comprehensive program for their gas metering project. USEA assembled a summary of the result of Vladimir's program, attached as *Exhibit 1*. Volgograd did not have a formal program developed and as a result was very slow in installing their meters. In both cities the installation was not near completion at the time of the DO completion date of February 28, 1998. Therefore, monitoring was not performed and no results could be reported then or even now.

Vladimir provided USEA with a report documenting the details of their gas meter installation work, which was included in USEA's 1997 Annual Report, provided as *Exhibit 1*. There is no such report available for Volgograd.

Summary of Gas Meters Supplied--

Specific meters provided to each city are listed in the following table

Meter Type	Volgograd		Vladimir	
	Shipped	Installed	Shipped	Installed
Master, AL-1000	2	1	6	6
Master, D/R Rotary	4	0	n/a	n/a
Master, AL-425	10	4	16	16
Residential, AL-250	350	52	450	430
Turbometer (Research)	1	1	n/a	n/a
<b>TOTAL</b>	<b>367</b>	<b>58</b>	<b>472</b>	<b>178</b>

Summary of Costs for Gas Meters--

Meter Type	Volgograd	Vladimir	Totals
	Cost, \$	Cost, \$	Cost, \$
Master, AL-1000	\$1,628 36	\$4,885 08	\$6,513 44
Master, D/R Rotary	\$3,434 28	\$0 00	\$3,434 28
Master, AL-425	\$1,746 00	\$2,793 60	\$4,539 60
Residential, AL-250	\$27,552 00	\$35,424 00	\$62,976 00
Turbometer (Research)	\$3,571 01	\$0 00	\$3,571 01
USAID Labels	-----	-----	\$860 00
Freight	-----	-----	\$35,000 00
<b>TOTAL</b>	-----	-----	<b>\$113,323 32</b>

#### 4 0 SCHEDULE

A milestone schedule for this DO is provided below

DATES	ACTIVITY
Sept 29, 1995	Authorization from OP
Oct - Dec , 1995	Coordination and preparation of specifications
Jan , 1996	Prepare Requisitions
Feb - May, 1996	Review and approval by counterparts in Vladimir and Volgograd, the WB, BUG, USEA, and USAID Incorporation of changes in type and quantities of meters
June 7, 1996	Request USAID/OP consent
July 22, 1996	Received USAID/OP consent
Aug 15, 1996	Purchase Orders for meters executed
Nov 20, 1996	Released freight forwarder to ship meters from U S
Dec 7, 1996	Meters arrive in Moscow
Jan , 1997	Meters delivered to Volgograd and Vladimir
Feb 28, 1997	DO Completion date

#### 5 0 RESULTS AND CONCLUSIONS

##### Results--

Major results of DO#18 are as follows

- Gas meters manufactured in America were supplied, installed and made operable in the homes of Russians
- There are various GOST standards for gas meters in Russia The GOST standards for design and safety were provided by the American suppliers Some suppliers were able to comply with the GOST Standards related to installation and commissioning of the meters Although American Meter Co claimed to be able to provide such GOST standards, they were not able to comply with the requirement of the BREI specification American Meter Co refuses to discuss this issue any further with BREI Buyer Beware

- Volgograd was able to install these meters without further input from the meter companies on GOST Standards
- Vladimir incurred some additional cost to obtain the necessary passports for their meters BREI told the administration in Vladimir to submit an invoice and BREI would evaluate paying these costs The administration was also told that BREI had planned to contact American Meter Co to discuss payment in the amount of \$3000 for these additional costs However, the necessary information to proceed was never supplied to BREI by Vladimir

### Conclusions--

Major conclusions are as follows

- Russian installations can interface with the American meter designs (even with connection details in English units)
- The WB lost interest in their loan for the gas distribution systems and in this USAID project This contributed to the lack of enthusiasm by Volgograd It also eliminated one of the primary objectives of this DO, which was to provide front end support to the WB loan However, the project still illustrated the use of U S equipment in Russia, which will have some effects in the long term
- The details of requirements will vary from city to city and region to region for gas meter projects
- Gas meters that "fully" comply with GOST Standards should be purchased in Russia through joint ventures or companies with partnering agreements with U S suppliers

### **6 0 RECOMMENDATIONS**

Recommendations are as follows

- Place penalties in contracts with American companies for equipment that does not fully comply with GOST Standards and is not able to be commissioned, or require the importer to provide the GOST certification
- Continue to develop projects that use the synergy of USAID projects These have the greatest likelihood of success



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**Vladimiroblgaz  
and  
Brooklyn Union Gas**

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**Background**

The Vladimiroblgaz/Brooklyn Union Gas Meter Project-Municipal Sector was developed in September of 1995 through February of 1996 by Vladimiroblgaz (VOG), a natural gas distribution company of Vladimir Russia, and Brooklyn Union(BU) a natural gas and electric utility of New York NY USEA is serving as a sponsor and coordinator of the VOG/BU Partnership Program including the Metering Project as part of the Energy Industry Partnership Program (EIPP) for the NIS while the United States Agency for International Development (USAID) is financing and supervising EIPP as part of a broader humanitarian and technical aid package in Russia as well as in other NIS Central and Eastern European nations

Financially the Project became possible due to grants of the World Bank (WB) to a number of Russian gas utilities to develop natural gas distribution rehabilitation projects in several Russian cities VOG and the City of Vladimir included Initial BU/BUG/USEA negotiations with WB took place in late 1994

The Gas Metering Project proposed by BU and VOG was aimed to initiate gas consumption metering in the residential sector of the City of Vladimir and potentially facilitate energy conservation and improve revenue collection in the city (see attached initial 14-step plan)

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In September of 1995 Anthony J DiBrita, Senior Vice President of BU in his letter to William Polen EIPP Manager of USEA outlined the main ideas and objectives of the Project (see attached letter dt 09/20/95)

In this report, we will go through each step of the original Project Plan (from 1 to 14) and every bullet of the Plan to review the status of Project implementation

### **DESIGN/INSTALLATION (Steps 1-6)**

#### **Step 1 Project Goals and Objectives**

- **Gas Metering**
- **Economically Feasible**
  - **Energy Conservation**
  - **Effect on Revenue Collection**

The goals and objectives maintained by VOG in the fulfillment of the Project are as follows

- to start residential gas consumption metering in apartment buildings in the City of Vladimir and
- to facilitate economically feasible energy conservation and evaluate effect of the metering on revenue collection

#### **Step 2 Meter Requirements**

- **Apartment Unit Metering**
- **Master Metering**
- **Measure Cooking Load Only**

It was decided and maintained by VOG in the implementation of the Project that two types of meters would be used in the Project apartment meters each one for a single apartment and master meters each one for all apartments in one entryway sub-block of an apartment building Both types of meters are measuring gas stove consumption only

#### **Step 2A Vendor Analysis**

In late 1995 USAID selected Burns and Roe Enterprises Inc (B&R), its contractor in another equipment procurement project for Russia, as provider of selection, purchasing and delivery of procured meters to VOG (as well as to another U S aid receiver in Russia -- a natural gas

distribution company in Volgograd)

The American Meter Company of Horsham PA (AMC) was chosen as manufacturer of meters to be purchased and the Processed Metals USA Inc of Feasterville PA, as its vendor

**- Cost, Reliability, Availability, Procurement Restrictions**

B&R analyzed all planned requirements for the meters to be procured Cost reliability availability and procurement restrictions analysis was completed by Burns &Roe

**- Maintenance, Warranty, Capacity, Vendor Support**

AMC meters were chosen for delivery, and AMC does not manufacture meters of capacities less than 6 m3/hr (unlike, Schlumberger for example ) B&R was not able to provide apartment meters of VOG-specified capacity of 3 m3/hr The 6 m3/hr AC250 meters of AMC delivered by B&R are much larger in size than Schlumberger 1 6 2 5 and G4 meters  
The AC250 meters have 15 years manufacturerAs (AMC) warranty, and AL425 and AL1000 meters have 1 year warranty The vendor has provided no warranty

No vendor maintenance or support was provided by AMC or the Processed Metals USA, because neither seller (AMC) nor vendor (Processed Metals USA) have any presence in Russia unlike Schlumberger for instance which has an office in St Petersburg Russia (see Step 5)

**Certification**

Another requirement to utilize the meters was certification for use in Russia Although B&R specifications demonstrated the meters would comply with Russian standards for use the delivered AMC meters happened not to be certified for use Russia which created a number of difficulties and delays in implementation of the Project (see Step 4)

**Step 2B Meter Redesign for Russian Conditions**

All AMC meters purchased and delivered by B&R have metric system scales necessary in accordance with Russian standards

**Step 3 Site Selection/Design**

It was originally planned by VOG/BU in the Project to deliver and install 432 apartment meters and 24 master meters 21 smaller size AL425 master meters and 3 larger size AL1000 meters (see attached Implementation Plan -Draft) Based on the funding provided by WB and selected meters unit prices B&R in fact delivered 450 apartment meters (AC250) and 22 master meters (16 pcs of AL425 and 6 pcs of AL1000)

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### **Step 3 Site Selection/Design**

It was originally planned by VOG/BU in the Project to deliver and install 432 apartment meters and 24 master meters 21 smaller size AL425 master meters, and 3 larger size AL1000 meters (see attached Implementation Plan -Draft) Based on the funding provided by WB and selected meters' unit prices, B&R in fact delivered 450 apartment meters (AC250), and 22 master meters (16 pcs of AL425, and 6 pcs of AL1000)

Due to unforeseen delays the meters were delivered to VOG on December 6 1996 versus March, or April of 1996 as had been planned initially

Certificate of Origin for the meters was issued by AMC on January 27 1997 and together with some Meter Manuals sent by B&R to VOG on February 5 1997

Total cost of the delivered meters was \$43 102 68

#### *Numbers of Meters Planned by VOG/BU for Delivery and Delivered by B&R*

Meter Type	VOG/BU Plan	B&R Delivery
Apartment Meters	432	450
Master Meters	24	22
- smaller size AL425	21	16
- bigger size AL1000	3	6

### **Step 4 Installation**

#### **- Pipe Fittings and Labor Supplies by VOG, Prefabrication of Meter Assembly**

Right after delivery VOG placed orders on manufacturing pipe fittings for the meters with a local manufacturer and received the fittings in early February of 1997

#### **Certification**

As none of the meters chosen were certified for use in Russia VOG found a Russian institution to certify the meters what it accomplished did in April of 1997 VOG placed about 10% of each type of meters for certification with the Moscow-based All-Russia R&D Institute on Metrology

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as was required by the Institute. The certification was completed in July 1997, and VOG got official permission to use them. The tested meters were returned to VOG in August.

### **- 10 Meter Installations Per Day**

Late delivery and change in meter capacity and numbers made VOG revise their original installation plan (see Step 3).

### **Apartment Meters**

The apartment meters could not be retrofitted easily for installation in existing units. Under the circumstances, a decision was made by VOG to install all apartment meters exclusively in new apartment buildings in the stage of completion of their construction instead of installing them in existing apartment buildings.

The need to wait for new apartment construction to be completed has temporarily stalled installation. As a result, the first 120 apartment meters were installed in the first newly built 120-apartment building in April of 1997. At present, 241 apartment meters out of 450 meters are installed in 4 new buildings.

As housing construction in the city is slow, it could take an additional three months or more to get 3-6 new apartment buildings ready for meter installation.

To run the Project as planned, VOG was also to find newly built apartment buildings with substandard heating conditions, which they located after some time. VOG analysis of technical specifications for the two buildings chosen showed the residents might use gas stoves for distress heating purpose in winter seasons. This decision by VOG would characterize the building heat insulation characteristics, rather than district heating standards as originally proposed (see attached Letter of Anthony DiBrita for reference).

### **Master Meters**

There were no problems with installation of master meters.

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**Comparison of Meter Installation Designs Originally Planned vs Implemented**

	Planned in buildings w		Total mtrs	Installed in buildings w		Total mtrs	To be installed in '98	Total meters to be installed
Number of meters	good heat	poor heat	planned	good heat	poor heat	installed		
<b>AC250</b>								
<u>Apartment meters</u>	<u>168</u>	<u>264</u>	<u>432</u>	<u>148</u>	<u>93</u>	<u>241</u>	<u>189*</u>	<u>430*</u>
Apartment buildings	2	4	6	2	2	4	3-6	7-10
<u>Master meters</u>	<u>7</u>	<u>17</u>	<u>24</u>	<u>6</u>	<u>12</u>	<u>18</u>	<u>4</u>	<u>22</u>
Apartment buildings	4	3	7	2	2	4	1	5
including								
- <u>AL425 meters</u>	<u>4</u>	<u>17</u>	<u>21</u>	<u>0</u>	<u>12</u>	<u>12</u>	<u>4</u>	<u>16</u>
Apartment buildings	1	3	4	0	2	2	1	3
- <u>AL1000 meters</u>	<u>3</u>	<u>0</u>	<u>3</u>	<u>6</u>	<u>0</u>	<u>6</u>	<u>0</u>	<u>6</u>
Apartment buildings	3	0	3	2	0	2	0	2
Total # of meters	175	281	456	154	105	259	193*	452*

\* - with 20 out 450 AC250 meters being used for replacement purposes

It was proposed in the original plan and Anthony DiBrita's outline of the project (see background) that each master meter would measure gas consumption of a whole apartment building though based on capacities of AMC master meters to be delivered VOG decided the meters could only be used to measure consumption of every riser in the building, i.e. the meters were to be installed in every entryway sub-block of an apartment building -

Installation was started in existing buildings on February 1 1997

Currently 18 master meters (12 out of 16 AC425s and all six AL1000s) are installed in 18 entryways of 4 apartment buildings all together The last 4 AC425 master meters will be installed by the end of November 1997

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The concept to have multi unit/multi-building apartment complexes run the Project was not realized because of the installation design changes described in this Step. That means the apartment buildings with individual meters installed are located quite far from buildings with master meters having the same space heating conditions.

### **Step 5 Meter Operations**

#### **- Handling, Storage, Installation Practices**

VOG has already purchased all necessary instrumentation for meter installation and maintenance. To protect master meters from damages and violence, special rooms for AL1000 meters installation have been designed and built in entryways of apartment buildings, while AL425 meters are being installed in specifically designed and manufactured metal boxes, mounted in entryways (see attached photographs).

#### **- Calibration/Testing (Vendor Support Required)**

VOG arranged competitive bidding on purchase of meter calibration equipment, and this purchase is included in the VOG budget for 1998.

#### **- Replacement Parts (Vendor Support Required)**

As VOG received 450 AC250 meters instead of 432 meters planned, and as they received no manufacturer nor vendor support, they decided to use about 20 AC250 meters for replacement purposes. Additionally, VOG can purchase spare parts from select Russian companies that manufacture a close equivalent of AC250 meters under a license of AMC. For the master meter part replacements, VOG will require a vendor support as it has been mentioned in the initial implementation plan (see Step 2A).

### **Step 6 Contractual Relations with Customers**

#### **Apartment Meters**

VOG developed a standard form Contract between the utility and each residential customer covering rights and responsibilities of both parties in October 1996. The contract is to be signed by each residential customer (apartment owner/tenant). Of the 241 apartments where meters are currently installed, only 85 contracts are signed, as the remaining apartments remain vacant. The process of contract signing is continuing as the owners/tenants are moving in.

**Master Meters**

VOG and BUG agreed that no billing would be done based on master meter readings  
Subsequently no contract was to be issued between VOG and residential customers

**BILLING & COLLECTION OPERATIONS (Steps 7-14)**

**Step 7 Meter Reading**

- **Manual meter reading on first day of month following installation and then every 30 days thereafter**
- **Paper-based meter reading with options for future automation (Hardware and software requirements for automation )**

**Master Meters**

**Master meter reading was started by VOG in March 1997 after installation of the first 6 master meters in February** They are being manually read by VOG personnel on the first day of every month The data is being manually put into a Master Meter Reading Ledger by a VOG employee who visits master meter locations each month

**Apartment Meters**

Utility personnel meter reading was considered cost-inefficient by VOG unless a massive installation of meters in the VOG service area would be provided It is not clear now when this situation may occur

A residential customer is to do meter reading on/around the 1st day of every month and put the reading and corresponding payment due on a coupon of a VOG-issued payment booklet ("self-billing ") He or she is to pay for the previous month service in the first 10 days of the current month (see Step 13)

Apartment meter reading commenced November 1997 Beyond previously described delays in the project implementation this is because (1) three of four apartment buildings where 241 individual meters have been installed are not yet inhabited and (2) a Russian standard prescribes utility services may only be charged to residential customers after their apartment building is officially commissioned while the first 120-apartment building has only been commissioned in late September 1997 This means VOG is allowed to begin charging first building customers in November for the services provided in October

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### **Step 8 Data Collection**

#### **Master Meters**

As stated in Step 7 all master meter readings are being manually collected in the \OG Master Meter Reading Ledger

#### **Apartment Meters**

Residential customers can choose whether to pay for their gas bills at any of dozens of local branches of the Savings Bank of Russia or at the VOG HQ Paystation. The paid coupons are being collected by the Bank and the Paystation as a primary data source for VOG while the customers get stubs of the paid coupons for reference.

### **Step 9 Data Transfer**

- Manual reads delivered to central location

#### **Master Meters**

As stated in steps 7 and 8 VOG employees are bringing all master meter readings for recording in the VOG Master Meter Reading Ledger to the utility's HQ after visiting the master meter locations.

#### **Apartment Meters**

After payments are received the Savings Bank of Russia and VOG HQ Paystation are sending the paid coupons to the VOG Meter Department established in early 1996 for processing and analysis and further work with customers on a monthly basis.

### **Step 10 Data Processing**

- PC-based system developed for data entry and processing

#### **Apartment Meters**

All data contained in paid coupons is manually entered into Meter Department personal computers by the Department personnel for storage and processing on a monthly basis.

#### **Master Meters**

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All new data from the VOG Master Meter Reading Ledger is manually entered into the meter department PCs by the department personnel for storage and processing on a monthly basis

Meter reading data of both residential and master meters is being processed by meter department personnel on a monthly basis

### **Step 11 Data Analysis**

- Data analysis to be provided on a monthly basis

The purpose of the Project was to allow VOG to compare (1) gas consumption amounts and (2) corresponding payments charged for three groups of residential consumers

- **Group I** -- apartments **individually** metered by apartment meters
- **Group C** -- apartments, **collectively** metered by master meters
- **Group N** -- **non-metered** households with pre-calculated consumption norms and flat rates being charged to an apartment tenant based on number of apartment residents and types/numbers of gas appliances installed

In cold seasons (winter late fall, and early spring) consumers of the Groups I and C may potentially show different consumption amounts and corresponding payments due having two different space heating conditions (standard and substandard) which additionally creates four subgroups

- **Subgroups IS and CS** -- consumers having apartments with **standard** heating conditions i.e. with better district heating quality and/or better building heat insulation characteristics and -
- Subgroups ISS and CSS** -- consumers having apartments with **substandard** heating conditions i.e. with lesser district heating quality, and/or lesser building heat insulation characteristics

The Group N has no difference in consumption norms and flat rates charged in cold seasons and warm seasons

This potentially gives the following 9 types of comparison of gas consumption and payment charged

- (1) Group I vs Group C
- (2) Group I vs Group N
- (3) Group C vs Group N

in cold seasons, standard heating -

- (4) Subgroup IS vs Subgroup CS
- (5) Subgroup IS vs Group N
- (6) Subgroup CS vs Group N

in cold seasons substandard heating -

- (7) Subgroup ISS vs Subgroup CSS
- (8) Subgroup ISS vs Group N
- (9) Subgroup CSS vs Group N

It was expected that consumers having their gas consumption metered would develop a more economic approach to gas consumption which might lay the groundwork for energy conservation in the city. This will be analyzed based on project statistics to be obtained in two years of consumption metering.

It was also expected that having developed statistics on metered gas consumption VOG would be better able to understand and forecast the utility gas purchase demand as well as deviation of gas demand correlated to low ambient temperatures.

The upcoming winter of 1997-98 is forecasted to be quite severe which may provide an opportunity to see how distress heating would change consumption amounts in the Subgroups ISS and CSS vs Subgroups IS and CS.

Data analysis is to be done by the VOG Meter Department for both types of meters.

#### **Apartment Meters (Group I)**

No apartment metering data has been collected by the meter department at this juncture. The first data will be obtained for services provided in October. This data will be available at the end of November 1997 (see Step 7).

#### **Master Meters (Group C)**

The Meter Department started data collection in February 1997 and has collected the data for a period of eight and a half months now. Currently only one comparison may be done: Group C vs Group N, i.e. actual consumption of and payment charged to the Group C versus consumption norms and flat rates of the Group N. **Preliminary analysis shows master metered residential consumers (Group C) in fact use 50 percent less gas than the VOG pre-calculated consumption norms (Group N)** (see attached Master Meters Efficiency Table).

BUG and VOG agreed that although Group C customers would be collectively metered by master meters they would be billed like non-metered customers (Group N), i.e. they would be charged

flat rates as if they had no meters at all. This, unlike the case with individually metered customers provides no grounds for evaluating possible consumption-awareness-based changes in their consumption trends.

This will make VOG capable of the following comparisons (when Group I data is collected)

- Group I vs Group C,
- Group IS vs Group CS, and
- Group ISS vs Group CSS,

where the Group C customers are metered, but ignorant, and the Group I customers are metered and aware about it, evaluating possible consumption-awareness-based changes in consumption trends.

### **Step 12 Customer Database Development**

- Initially PC based
- Customer related information will be developed on a continuous basis
  - Name, customer number
  - Address
  - Appliances
  - Consumption data
  - Payment data
  - Meter number type
  - Leak history

The VOG Meter Department is currently using 2 interconnected personal computers which are sufficient for maintaining the current customer database today. VOG has plans to purchase at least two additional PCs in the near future based on the demand forecast for residential gas meters that will increase with the likely future raise of residential gas rates (see above).

In 1996 VOG used its existing industrial customer software to develop a residential customer software. This software is currently based on MS-DOS. The software is now in the process of further development.

### **Apartment Meters (Group I)**

The VOG residential customer software contains the following customer related information as planned.

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- Name customer number
- Address
- Appliances installed
- Consumption data  
(meter readings, reading verifications and forecasted consumption)
- Payment data  
(date of payment amount paid and method of payment)
- Meter number, type

Leak History information has not yet been included in the customer databaser as previously it was maintained by the technical department of the utility and will be connected to the customer database at a later stage

VOG also added two pieces of information to the Database

- Number of apartment residents apartment area (m<sup>2</sup>) customer privileges/benefits (this is to allow VOG to charge flat rates in case of meter repairs or replacements according to maintenance standards)
- Service disconnections and service re-establishments

(See attached computer screens of the Group I database)

### **Master Meters (Group C)**

The meter department s customer database is maintaining data for each master metered collective customer (all apartments of one entryway sub-block of an apartment building) which includes

- Collective customer number
- Address (street address and entryway number)
- Appliances
- Consumption data
- Payment data
- Meter number type

VOG is also recording

- Number of apartments in the entryway
- Number of apartment residents apartment s area (m<sup>2</sup>)  
customer privileges/benefits  
(this to let VOG charge flat rates as it was planned in the Project)
- Service disconnections and service re-establishments

(See attached computer screens of the Group C database)

### **Steps 12A & 12B Future Computer Requirements**

- **Customer information system**
- **Hardware/software**

VOG is currently developing its internal corporate computer network, which will allow VOG to avoid paper flow between departments and services of the company and make informational exchange and management easier. The network will be completed by the end of this year. This also will let VOG start creating a Customer Information System.

Expecting further increase in residential and small business rates, VOG is considering an option of purchasing 'smart' meters and managing system using prepaid plastic cards. The utility also foresees a growing demand of its residential customers in meter installation.

VOG has plans to convert the existing Database from an MS-DOS to a Windows software environment soon.

### **Step 13 Customer Billing**

#### **Master Meters**

As it was agreed between BU and VOG, Group C customers are being billed like non-metered customers (Group N), i.e. they are being charged flat rates based on number of apartment residents (all apartments under Project have only gas stove as it has been agreed).

#### **Apartment Meters**

- **Customer is responsible for initial read and billing computation**

As described in step 7, apartment metered customers are eligible to provide "self-billing", i.e. fill out a coupon in a VOG-issued payment booklet by the 10th of each month based on their meter self-readings, done on/around 1st day of the month. VOG employees are doing verification on a regular basis (see Step 7).

- **Bill is to be paid by customer on a monthly basis at local post office**

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Residential customers can choose whether to pay for their gas bills at any of dozens of local branches of the Savings Bank of Russia or otherwise at the VOG HQ Paystation. The bank is to transfer the money paid to a VOG account within one week after the payment is completed.

### **- Verification by meter reader on a monthly basis**

VOG according to the service Contract has the right to verify customer readings in case of non-payment or under-payment, based on data collected in the newly created VOG Customer Database (see Step 12) and also as part of a periodic readings verification process.

Visiting an apartment, a VOG employee will also check with the plastic seal on the gas meter case. The seals are to be manufactured in the City of Vladimir by the end of November, modeled after a sample plastic seal being submitted to VOG by BUG in February 1996. VOG understands these plastic seals will be more durable, fraud-protected and cheaper than the lead seals previously used by VOG with already installed Russian-made and Schlumberger gas meters in single-family houses since 1994.

### **- Delinquent accounts shut-off after one billing period**

VOG is not yet practicing delinquent accounts shut-off after one billing period primarily because they have not yet started billing their apartment metered customers (see Step 7). VOG is now preparing to implement these procedures although they have not done so in the past and are skeptical that these measures may not be efficient enough. Further study of the issue is needed.

### **Step 14 Collection**

No change in collections has yet occurred although VOG understands using individual meters will decrease VOG's collections in the initial stage.

## **CONCLUSIONS AND PROPOSALS**

- 1 VOG started master meter data collection in February 1997
- 2 VOG started apartment meter data collection in October 1997
- 3 October 1, 1997 is the beginning of the experimental data collection period
- 4 Due to the severe forecast for winter of 1997-98, the trial period can be shortened from the original two years to one year, ending on October 1, 1998
- 5 Brooklyn Union, as sister utility, can provide help to VOG in
  - (A) creating a more sophisticated Customer Database when VOG is converting it from MS-DOS to Windows
  - (B) creating a Customer Information System
  - (C) creating approaches and tools of analysis of collected customer-related data



**AL-1000 Meter**

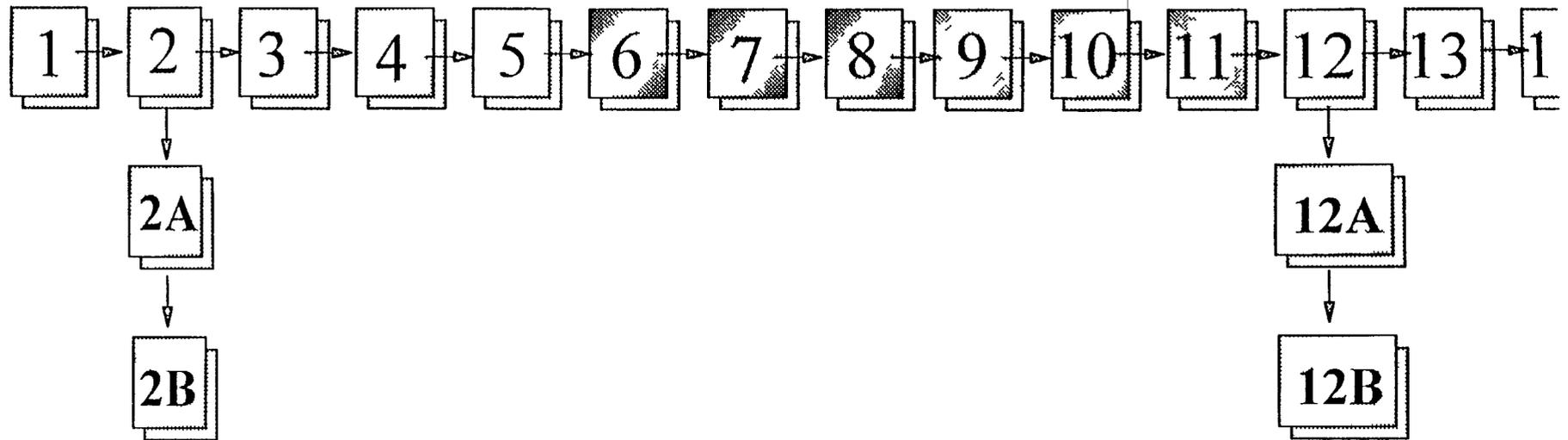


**AC-250 Meter**



**AL-425 Meter**

# VLADIMIROBLGAS / BROOKLYN UNION GAS METER PROJECT - MUNICIPAL SECTOR



- |   |   |   |   |
|---|---|---|---|
| <b>1</b> Project Goals and Objectives                       | <b>4</b> Installation                         | <b>9</b> Data Transfer                  | <b>12A</b> Future Computer Requirements |
| <b>2</b> Meter Requirements                                 | <b>5</b> Meter Operations                     | <b>10</b> Data Processing               | <b>12B</b>                              |
| <b>2A</b> Vendor Analysis                                   | <b>6</b> Contractual Relations with Customers | <b>11</b> Data Analysis                 | <b>13</b> Customer Billing              |
| <b>2B</b> Meter Redesign Flexibility for Russian Conditions | <b>7</b> Meter Reading                        | <b>12</b> Customer Database Development | <b>14</b> Collection                    |
| <b>3</b> Site Selection / Design                            | <b>8</b> Data Collection                      |   |   |

# DESIGN / INSTALLATION

---

1

Project Goals and Objectives

2

Meter Requirements

3

Site Selection / Design

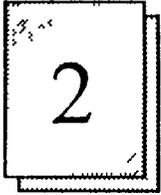
4

Installation

1

## Project Goals and Objectives

- Gas Metering
- Economically Feasible
  - **Energy Conservation**
  - **Effect on Revenue Collection**



## Meter Requirements

- Apartment Unit Metering
- Master Metering
- Measure Cooking Load Only

## 2A

### Vendor Analysis

- Cost
- Reliability
- Maintenance
- Warranty
- Capacity
- Vendor Support
- Availability
- Procurement Restrictions

## 2B

### Meter Redesign Flexibility for Russian Conditions

3

## Site Selection / Design

\$17,000 Proposal

- 208 Apartment Units
- 11 Master Meters

\$35,000 Proposal

- 423 Apartment Units
- 24 Master Meters

# 4

## Installation

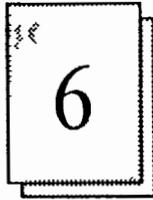
- **Pipe Fittings and Labor Supplied by VLADIMIROBLGAZ**
- **Brooklyn Union to assist on initial installation**
- **Prefabrication of meter assembly**
- **10 meter installations per day**

4-6 week installation period for \$17,000 Proposal

# 5

## Meter Operations

- Handling
- Storage
- Calibration / Testing \*
- Installation Practices
- Replacement Parts \*
- Instrumentation Procurement \*



## Contractual Relations with Customers

**Develop standard form contracts between VLADIMIROBLGAZ and residential consumers providing rights and responsibilities of both parties.**

# **BILLING & COLLECTION OPERATIONS**

---

7

Meter Reading

11

Data Analysis

8

Data Collection

12

Customer Database  
Development

9

Data Transfer

13

Billing

10

Data Processing

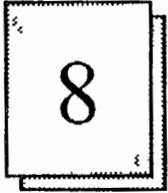
14

Collection



## Meter Reading

- Manual meter reading on first day of month following installation and then every 30 days thereafter
- Paper based with options for future automation
  - **Hardware and software requirements for automation**



Data Collection



Data Transfer



Data Processing



Data Analysis

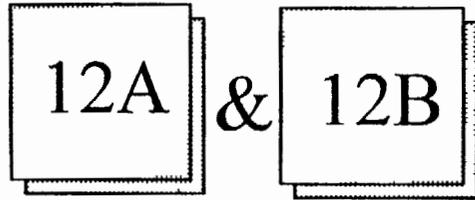
- **Manual reads delivered to central location**
- **Data analysis to be provided on a monthly basis**
- **PC based system developed for data entry and processing**

12

## Customer Database Development

- Initially PC based
  
- Customer related information will be developed on a continuous basis
  - **Name, customer number**
  - **Address**
  - **Appliances**
  - **Consumption data**
  - **Payment data**
  - **Meter number, type**
  - **Leak history**

348



## Future Computer Requirements

- Customer information system
- Hardware / software

13

## Customer Billing

14

## Collection

- **Customer is responsible for initial read and billing computation**
- **Bill is to be paid by customer on a monthly basis at local post office**
- **Verification by meter reader on a monthly basis**
- **Delinquent accounts shut-off after one billing period**

SEP 22 1995

SEP 21 1995



One MetroTech Center  
Brooklyn New York 11201 3851  
718 403 2437  
718 643 2277 Fax

September 20, 1995

Anthony J DiBrito, P E  
Senior Vice President

Mr Will Polen  
Program Manager/New Independent States  
United States Energy Association  
1620 Eye Street, NW  
Suite 900  
Washington, DC 20006

Dear Will.

At our last meeting at the World Bank in Washington, DC, you and I discussed the development of an operations plan for 1996 to satisfy our partnership agreement with Vladimir Gas Company (VOG) My apologies for a delay in getting this information to you. As discussed, I would put some words to paper explaining/defining what Brooklyn Union (BU) would be recommending and that you would then make use of this for purposes of developing a formal timeline plan

Having discussed with the World Bank a potential metering project for Vladimir Gas Company, wherein the World Bank would donate 500 meters for the project, the following basically outlines the specific project and a timeframe for accomplishing same (assuming the World Bank's contribution of 500 meters for VOG)

OUTLINE  
BROOKLYN UNION/VLADIMIR PARTNERSHIP PLANS  
1996

Proposed Metering Project

- Choose two separate multi-unit/multi-building apartment complexes.
  - At one of the complexes, one of the buildings would have a single master meter installed for the metering of gas consumption for cooking of all living units within the one building. An average consumption per living unit will then be calculated and logged for future review based on the master meter readings.

⊗



Mr Will Polen

- 2 -

September 20, 1995

- In a second apartment building in the same complex, individual gas meters will be installed for each living unit within the building for the purposes of individually metering actual gas consumption for cooking for each of the living units. This data will also be collected and logged for future use.
- In the second complex, the very same metering (master metering for one building, individual metering for the second building) will be accomplished and the same data collected.
- The purpose for this demonstration project taking place at two separate complexes is to be able to analyze consumption wherein the two different complexes have major differences in the quality of the existing space heating.
- One of the complexes chosen for this project must have a quality heating system in place. The second complex's heating system shall be substandard (an older system not capable of satisfying the heating requirements of the complex).
- By evaluating and comparing data in this manner Vladimir Gas Company will be able to determine the following:
  - Customers' consumption profile for cooking, of those customers paying the same amount, regardless of their individual consumption, based on an average charge calculated off of the master meter versus the customer profile of those who are billed for actual consumption based on their individual meter.
  - Secondly, by comparing the differences in consumption profiles between complexes, Vladimir Gas Company will be able to examine customer attitudes and usage trends when consumers are using cooking appliances for distress (supplemental) heating.

⊗



Mr Will Polen

- 3 -

September 20, 1995

- All data shall be collected and evaluated over the course of two heating seasons in order to normalize potential differences from one year to the next. As this will then encompass a spring, summer, fall timeframe, further information as to customer habits and consumption will also become available.
- As to timing of this project, I expect (assuming World Bank participation in providing the meters) a 4-6 month period for the delivery of meters and any associated fittings and piping necessary for the installation portion of this project.
- While I believe BU has already supplied standard specifications and drawings for the proper installation of these meters, we will confirm that with VOG and otherwise send them that information in order that they may prepare their select crews for the installation of these meters. At such time as all materials are available, BU would send two or three of its engineers to VOG for one to two weeks to supervise, educate VOG crews in the initial installations. I anticipate this to occur in March or April 1996.
- Concurrent, or while the rest of the meters are being installed, BU engineers will work with Vladimir engineers to develop the forms and procedures for the meter reading, data collection and the evaluation portion of this project.
- Seasonally, BU and VOG will communicate for purposes of coming to conclusions, based on the data collected, with the intent to revise forms, procedures, etc., as necessary. At the end of the two winter seasons, final conclusions will be drawn and recommendations for the VOG transition to gas metering will be made.

⊗



Mr. Will Polen

- 4 -

September 20, 1995

Other Activities

Subsequent to the last visit by VOG senior executives, we received a letter from Mr. Tarensenko requesting a visit from two BU executives; Tina Barber, Vice President-Information Systems, and Lenore Puleo, Senior Vice President-Customer Relations Group for purposes of discussing and exchanging information in those two technical areas. Through your office, I advised Vladimir Gas Company that the timing of September 1995 was not realistic, nor did I feel that the time was right for two of BU's female officers to be visiting the Vladimir region.

More importantly, I have continued to advise Mr. Tarensenko that there is far more value in his sending his technicians and officers to BU to discuss the policies, procedures, operations and activities of BU rather than our people going to Vladimir, Russia. The reason for my advise is that their technicians/officers will be able to speak to many BU employees and will be able to have "hands-on" experience in real time of the various activities they want to learn about, understand and discuss. Also, very little can be gained by BU officers visiting VOG and only verbalizing those activities taking place at BU.

Based on this, BU is willing to receive VOG staff, experts, and/or officers at BU at any time and we will commit (as has been done in the past) whatever peoples are necessary to satisfy the Vladimir peoples interests. Within that offer, a few parameters should be established. BU would prefer to receive no more than two or three people with one or two interests at any one time and we would not want to receive more than two or three groups over the course of the year. These visits should be planned some months in advance to allow BU to schedule the VOG visitors based on the seasonal workloads of the various divisions in BU.

I expect that this information will assist you in developing the formal BU/VOG partnership plans for 1996. Should you have any questions or care to discuss further, please feel free to call.

Sincerely,

A handwritten signature in cursive script, appearing to read 'W. Polen', written in dark ink.

⊗

## RECORD OF TELEPHONE CONVERSATIONS

DATE January 22, 1996  
TIME 9 30 a m

cc D Tuckhorn  
Fax 202-408-6835

FROM G Keller  
COMPANY/DEPT BRC  
Tel 201-986-4313

TO Mr Gene Fomnykh  
COMPANY/DEPT USEA  
Tel 011-7-095 956-8258  
Fax 011-7-095-956 8264

SUBJECT VLADIMIRGORGAS ' WISH LIST

### DISCUSSION

- 1 I introduced myself to Mr Fomnykh and stated that it is impossible for me to send a fax to Mr Vladimir I Tarasenko
- 2 Mr Fomnykh indicated that it may be easier for him to forward my fax to Vladimorgorgas



*Burns and Roe Company*

**George Y Keller P E**  
*Senior Consulting Engineer  
Instrumentation and Controls*

82 11 22 1996 9 30 a m  
201 986 4313

## RECORD OF TELEPHONE CONVERSATIONS

DATE January 22, 1996  
TIME 8 30 a m

cc D Tuckhorn  
Fax 202-408-6835

FROM G Keller  
COMPANY/DEPT BRC  
Tel 201-986-4313

TO Mr Vladimir I Tarasenko  
COMPANY/DEPT Vladimorgorgas  
Tel 011-7-0922-237 245

SUBJECT VLADIMORGORGAS WISH LIST

### DISCUSSION

- 1 Mr Vladimir I Tarasenko indicated that he expected my call because Mr Kulik called him earlier. He knew of the Volgogradgorgas 'wish list' but could not produce one of his own at this point.
- 2 Mr Tarasenko asked for a copy of the preliminary requisition 'Gas Meters for Volgograd GORGAS' so that he can consider it.
- 3 Mr Tarasenko indicated that it will be impossible for him to call me. I am to initiate future contacts.

PS Most of the time it is also impossible for me to call him or send a fax.

FAX

To Mr Vladimir I Tarasenko @ Vladimurgorgas

Fax 7-0922-237 794

Tel 7-0922-237 245

CC D Tuckhorn @ BREI/USAID

Fax 202-408-6835

CC G Stuggins @ World Bank

Fax 202-477-3285

From G Keller @ Burns&Roe

Fax 201 986 4302

Tel 201-986-4294

Date January 22 1996

1 Attached is a preliminary requisition as per our conversations this morning (Standard Eastern Time)

Best regards

George Keller

## REQUISITION

## Gas Meters for Volgograd GORGAS

Item	Q-ty	Description	Est Unit Price	Total US\$
1	30	Domestic gas meters for private homes American Meter Company model AC-250 or equal, 6M <sup>3</sup> /Hr capacity temperature compensation 5 psi WPM, operating temperature - 40 to + 40° C, aluminum body, 18 mm connections, preprinted Volgograd "GORGAS" badges. The meters shall have 36 months warranty after delivery. The meters shall have certificate of compliance with GOST 8 324-78, Certificate of Origin Form A, and Certificate of Safety as per GOST R.		
2	10	Domestic gas meters for private homes American Meter Company model AL-420 or equal 12M <sup>3</sup> /Hr capacity temperature compensation 5 psi WPM, operating temperature - 40 to + 40° C, aluminum body, 20 mm connections, preprinted Volgograd GORGAS badges. The meters shall have 36 months warranty after delivery. The meters shall have certificate of compliance with GOST 8 324-78, Certificate of Origin Form A, and Certificate of Safety as per GOST R.		
3	2	Diaphragm style gas meter, American Meter Company model AL-1000 or equal 28 M <sup>3</sup> /Hr capacity, 25 psi WPM, 90 to 400 mm W C process conditions. Operating temperature - 40 to + 40° C, aluminum body, 40 mm connections, preprinted Volgograd GORGAS' badges with serial number and logo. The meter shall have 6 digits plus 0.1 M <sup>3</sup> index 0.1 M <sup>3</sup> meter test dial, and shall be accurate to 1% between 20 and 100% capacity. The meter and associate fittings shall have 36 months warranty after delivery. The meters shall have certificate of compliance with GOST 8 324-78, Certificate of Origin Form A, and Certificate of Safety as per GOST R.		

4	2	<p>Rotary style gas meter, Dresser-Roots model 11C175CTR-M or equal 40 M<sup>3</sup>/Hr capacity 175 psi WPM 90 to 400 mm W C process conditions Operating temperature -40 to +40° C aluminum body 50 mm Flat Face connections preprinted Volgograd GORGAS' badges with serial number and logo The meter shall have 7 digits plus 0.01 M<sup>3</sup> index, 0.01 M<sup>3</sup> meter test dial, and shall be accurate to 1% between 20 and 100% capacity The meter and associate fittings shall have 36 months warranty after delivery The meters shall have certificate of compliance with GOST 8 324-78, Certificate of Origin, Form A, and Certificate of Safety as per GOST R</p>		
5	2	<p>Turbine style gas meter, Daniel Industries model or equal, pressure and temperature compensated (electronic corrector), 200 M<sup>3</sup>/Hr capacity 175 psi WPM, 90 psi process conditions Operating temperature -40 to +40° C aluminum body, 75 mm RF connections, preprinted Volgograd 'GORGAS' badges with serial number and logo The meter shall have 7 digits plus 0.01 M<sup>3</sup> index, 0.01 M<sup>3</sup> meter test dial and shall be accurate to 1% between 20 and 100% capacity The meter and associate fittings shall have 36 months warranty after delivery The meters shall have certificate of compliance with GOST 8 324-78, Certificate of Origin Form A and Certificate of Safety as per GOST R</p>		

**Grand Total =**

**Notes**

- 1 All equipment supplied under this requisition must be made in USA.

## Implementation Plan (Draft)

### Plan Objectives

The objectives of this project are to study the effects of installing metering devices in individual apartments in terms of improving the efficiency of gas consumption and to refine per capita consumption norms as currently established for residents of buildings with heating systems which are in compliance with established standards (SnIP 2 08 01-85), as well as buildings with substandard heating

Project implementation will involve installation of gas meters in apartment buildings in the city of Vladimir. Gas service to these buildings is supplied by Vladimiroblgaz via its Vladimiroblgaz Trust. Meters will be supplied by American Meter Company, with a total of 208 meters to be installed under option #1 and 452 meters under option #2. Comparative data will be obtained through installation of American Gas Company master meters (either 11 or 24 units, depending on the option selected) in the entryways of buildings for which individual metering is not planned.

Municipally-owned apartment buildings were selected for inclusion in this project in view of their standardized construction, floor plans and number of apartments, with consideration for two criteria, i.e. central heating systems in compliance with SnIP 2 08 01 -85, and those in violation of SnIP 2 08 01 -85.

*(See attachments 1 and 2)*

### Installation

Gas meter installation will be performed by Vladimiroblgaz service personnel subsequent to delivery of the aforementioned meters to Vladimir by Burns & Roe. Commencement of gas meter installation is projected for a date 10 days subsequent to delivery of meters to Vladimir by Burns & Roe. During this 10-day period Vladimiroblgaz will be engaged in preparations for installation (specifically, fabrication of connections that will allow installation on existing services), in accordance with project specifications.

*(See attachments 3-8)*

Vladimiroblgaz expects to install 7-10 gas meters per day, so that complete installation of the quantity of meters indicated in option #1 would require six weeks and the quantity indicated in option #2 three months.

Information regarding the progress of installation will be faxed to \_\_\_\_\_ as will metering data subsequently collected on the basis of a metering data reporting form (data to be supplied every 30 days).

*(See attachment 9)*

45

List of Apartment Buildings in Vladimir Scheduled for  
Installation of American Meters  
(Identical Structural Design)

Site	Address and Bldg Number	Apt Units	Meter Type	Unit Price, US\$	Total	Building Heating Compliance With SnIP 2 08 01- 85	Notes
1	Pochayevskaya, 30 (4 entryways)	60	AL-425	140	560	Not in compliance	Master meter at each entryway
2	2nd Pochayevskiy proyezd, 4	60	AC-250	70	4 200	Not in compliance	Room sets
3	191V Dobroselskaya St (4 entryways)	60	AL-425	140	560	In compliance	Master meter at each entryway
4	Kommissarov 37	60	AC-250	70	4 200	In compliance	Room sets
5	Universitetskaya 9	88	AC-250	70	6 160	Not in compliance	Room sets
6	Universitetskaya 9 (4th entryway)	22	AL-1000	600	600	Not in compliance	Master meter at entryway
7	Universitetskaya 7 (1st and 2nd entryways)	66	AL-1000	600	1 200	Not in compliance	Master meter at each entryway

Total number of AC-250 meters	208
Total number of AL-425 meters	8
Total number of AL-1000 meters	3
Cost	\$17 480

[Signed] A P Botin Director, Vladimirovgaz Residential Distribution Systems Trust

List of Apartment Buildings in Vladimir Scheduled for  
Installation of American Meters  
(Identical Structural Design)

Site	Address and Bldg Number	Apt Units	Meter Type	Unit Price, US\$	Total	Building Heating Compliance With SnIP 2 08 01- 85	Notes
1	Lakina 171a	108	AC-250	70	7 560	In compliance	Room sets
2	Lakina 167a (3 entryways)	108	AL-1000	600	1 800	In compliance	Master meter at each entryway
3	Lakina 195	60	AC 250	70	4 200	In compliance	Room sets
4	Rostopchina 49B (4 entryways)	60	AL-425	140	560	In compliance	Master meter at each entryway
5	Lakina 171B	60	AC-250	70	4 200	Not in compliance	Room sets
6	Lakina 173A (4 entryways)	60	AL-425	140	560	Not in compliance	Master meter at each entryway
7	Surikova 24 (8 entryways)	119	AL-425	140	1 120	Not in compliance	Master meter at each entryway
8	Traktornaya 9	119	AC 250	70	8 330	Not in compliance	Room sets
9	Lakina 187A (5 entryways)	75	AL-425	140	700	Not in compliance	Master meter at each entryway
10	Lakina 173	42	AC-250	70	2 940	Not in compliance	Room sets
11	Lakina 171	43	AC-250	70	3 010	Not in compliance	Room sets

Total number of AC-250 meters                   432  
Total number of AL-425 meters                   21  
Total number of AL-1000 meters                   3  
Cost   \$34 980

[Signed] A P Botin Director Vladimirogorgaz Residential Distribution Systems Trust



GROUP C DATABASE  
(IN RUSSIAN ONLY)

21 10 97

ОТЧЕТ ПО НАЧИСЛЕНИЯМ ЗА ГАЗ

Стр 1

	При откл счетчика	По показ счетчика	Максим льгота	Фактич льгота	Максим по нормам	ИТОГО к оплате	Эффект счетчика
Клиент	300000 СЧ N 6633283						
	ул ЛАКИНА , д 167А 1П, кв 1П						
январь	0	0	0	0	0	0	0
Февраль	0	70704	0	0	133457	70704	62753
Март	0	107280	0	0	186840	107280	79560
Апрель	0	104256	0	0	186840	104256	62584
Май	0	88848	0	0	186840	88848	97992
Июнь	0	59040	0	0	186840	59040	127800
Июль	0	0	0	0	186840	0	0
Август	0	121824	0	0	186840	121824	65016
Сентябрь	0	106848	0	0	186840	106848	79992
Октябрь	0	3456	0	0	186840	3456	183384
Ноябрь	0	0	0	0	186840	0	0
Декабрь	0	0	0	0	186840	0	0

	При откл счетчика	По показ счетчика	Максим льгота	Фактич льгота	Максим по нормам	ИТОГО к оплате	Эффект счетчика
Клиент	300001 СЧ N 9626633280						
	ул ЛАКИНА , д 167А 2П, кв 2П						
январь	0	0	0	0	0	0	0
Февраль	0	73008	0	0	137164	73008	64156
Март	0	103248	0	0	192030	103248	88782
Апрель	0	98640	0	0	192030	98640	93390
Май	0	80784	0	0	192030	80784	111246
Июнь	0	58608	0	0	192030	58608	133422
Июль	0	3744	0	0	185835	3744	182091
Август	0	117504	0	0	192030	117504	74526
Сентябрь	0	58608	0	0	192030	58608	133422
Октябрь	0	10080	0	0	192030	10080	181950
Ноябрь	0	0	0	0	192030	0	0
Декабрь	0	0	0	0	192030	0	0

	При откл счетчика	По показ счетчика	Максим льгота	Фактич льгота	Максим по нормам	ИТОГО к оплате	Эффект счетчика
Клиент	300002 СЧ N 9626633282						
	ул ЛАКИНА , д 167А 3П, кв 3П						
январь	0	0	0	0	0	0	0
Февраль	0	92736	0	0	157116	92736	64380
Март	0	90000	0	0	176460	90000	86460
Апрель	0	84960	0	0	176460	84960	91500
Май	0	101232	0	0	176460	101232	75228
Июнь	0	68832	0	0	176460	68832	107628
Июль	0	71280	0	0	176460	71280	105180
Август	0	71280	0	0	176460	71280	105180
Сентябрь	0	97344	0	0	176460	97344	79116
Октябрь	0	3024	0	0	176460	3024	173436
Ноябрь	0	0	0	0	176460	0	0
Декабрь	0	0	0	0	176460	0	0

	При откл счетчика	По показ. счетчика	Максим льгота	Фактич льгота	Максим по нормам	ИТОГО к оплате	Эффект счетчика
Клиент	300003 СЧ N 6633284						
	ул ЛАКИНА					, д 171А 1П, кв 1П	
январь	0	0	0	0	0	0	0
Февраль	0	61488	0	0	131233	61488	69745
Март	0	109152	0	0	204140	109152	94988
Апрель	0	104976	0	0	204140	104976	99164
Май	0	106128	0	0	204140	106128	98012
Июнь	0	159840	0	0	204140	159840	44300
Июль	0	78912	0	0	204140	78912	125228
Август	0	78912	0	0	204140	78912	125228
Сентябрь	0	117360	0	0	204140	117360	86780
Октябрь	0	3888	0	0	204140	3888	200252
Ноябрь	0	0	0	0	204140	0	0
Декабрь	0	0	0	0	204140	0	0

	При откл счетчика	По показ. счетчика	Максим льгота	Фактич льгота	Максим по нормам	ИТОГО к оплате	Эффект счетчика
Клиент	300004 СЧ N 6633281						
	ул ЛАКИНА					, д 171А 2П, кв 2П	
январь	0	0	0	0	0	0	0
Февраль	0	59728	0	0	126784	59328	67456
Март	0	112032	0	0	197220	112032	85188
Апрель	0	108864	0	0	197220	108864	88356
Май	0	104256	0	0	197220	104256	92964
Июнь	0	147456	0	0	197220	147456	49764
Июль	0	73296	0	0	197220	73296	123924
Август	0	73440	0	0	197220	73440	123780
Сентябрь	0	131616	0	0	197220	131616	65604
Октябрь	0	4320	0	0	197220	4320	192900
Ноябрь	0	0	0	0	197220	0	0
Декабрь	0	0	0	0	197220	0	0

	При откл счетчика	По показ. счетчика	Максим льгота	Фактич льгота	Максим по нормам	ИТОГО к оплате	Эффект счетчика
Клиент	300005 СЧ N 6633285						
	ул ЛАКИНА					, д 171А 3П, кв 3П	
январь	0	0	0	0	0	0	0
Февраль	0	56448	0	0	113686	56448	57238
Март	0	108288	0	0	198950	108288	90662
Апрель	0	102960	0	0	198950	102960	95990
Май	0	95472	0	0	198950	95472	103478
Июнь	0	141984	0	0	198950	141984	56966
Июль	0	70848	0	0	198950	70848	128102
Август	0	70704	0	0	198950	70704	128246
Сентябрь	0	111456	0	0	198950	111456	87494
Октябрь	0	3600	0	0	198950	3600	195350
Ноябрь	0	0	0	0	198950	0	0
Декабрь	0	0	0	0	198950	0	0

	При откл счетчика	По показ счетчика	Максим льгота	фактич льгота	Максим по нормам	ИТОГО к оплате	Эффект счетчика
Клиент	300006 ул СУРИКОВА, 24 ул СУРИКОВА , д 24 1П , кв.1П						
январь	0	0	0	0	0	0	0
Февраль	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	59328	0	0	0	59328	9238
Июль	0	30672	0	0	70930	30672	40258
Август	0	30816	0	0	70930	30816	40114
Сентябрь	0	46512	0	0	70930	46512	24418
Октябрь	0	1584	0	0	70930	1584	69346
Ноябрь	0	0	0	0	70930	0	0
Декабрь	0	0	0	0	70930	0	0

	При откл счетчика	По показ счетчика	Максим льгота	фактич льгота	Максим по нормам	ИТОГО к оплате	Эффект счетчика
Клиент	300007 ул СУРИКОВА, 24 ул СУРИКОВА , д 24 2П , кв 2П						
январь	0	0	0	0	0	0	0
Февраль	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	50112	0	0	0	50112	1730
Июль	0	24480	0	0	53630	24480	29150
Август	0	24336	0	0	53630	24336	29294
Сентябрь	0	40464	0	0	53630	40464	13166
Октябрь	0	1296	0	0	53630	1296	52334
Ноябрь	0	0	0	0	53630	0	0
Декабрь	0	0	0	0	53630	0	0

	При откл счетчика	По показ счетчика	Максим льгота	фактич льгота	Максим по нормам	ИТОГО к оплате	Эффект счетчика
Клиент	300008 ул СУРИКОВА, 24 ул СУРИКОВА , д 24 3П , кв 3П						
январь	0	0	0	0	0	0	0
Февраль	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	42912	0	0	0	42912	32343
Июль	0	21024	0	0	77850	21024	56826
Август	0	21024	0	0	77850	21024	56826
Сентябрь	0	28512	0	0	77850	28512	49338
Октябрь	0	864	0	0	77850	864	76986
Ноябрь	0	0	0	0	77850	0	0
Декабрь	0	0	0	0	77850	0	0

	При откл счетчика	По показ счетчика	Максим льгота	Фактич льгота	Максим по нормам	ИТОГО к оплате	Эффект счетчика
Клиент	300009	УЛ СУРИКОВА, 24 ул СУРИКОВА				, д 24 4П , кв 4П	
январь	0	0	0	0	0	0	0
Февраль	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	53712	0	0	0	53712	4820
Июль	0	25776	0	0	60550	25776	34774
Август	0	25920	0	0	60550	25920	34630
Сентябрь	0	37584	0	0	60550	37584	22966
Октябрь	0	1152	0	0	60550	1152	59398
Ноябрь	0	0	0	0	60550	0	0
Декабрь	0	0	0	0	60550	0	0

Клиент	300010	УЛ СУРИКОВА, 24 ул СУРИКОВА				, д 24 5П , кв 5П	
январь	0	0	0	0	0	0	0
Февраль	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	50112	0	0	0	50112	5075
Июль	0	25776	0	0	57090	25776	31314
Август	0	25776	0	0	57090	25776	31314
Сентябрь	0	28800	0	0	57090	28800	28290
Октябрь	0	9072	0	0	57090	9072	48018
Ноябрь	0	0	0	0	57090	0	0
Декабрь	0	0	0	0	57090	0	0

Клиент	300011	УЛ СУРИКОВА, 24 ул СУРИКОВА				, д 24 6П , кв 6П	
январь	0	0	0	0	0	0	0
Февраль	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	50976	0	0	0	50976	9228
Июль	0	24192	0	0	62280	24192	38088
Август	0	24336	0	0	62280	24336	37944
Сентябрь	0	38592	0	0	62280	38592	23688
Октябрь	0	1296	0	0	62280	1296	60984
Ноябрь	0	0	0	0	62280	0	0
Декабрь	0	0	0	0	62280	0	0

Клиент	При откл		Максим		ИТОГО	Эффект
	По показ	счетчика	льгота	льгота по нормам		
300012	УЛ СУРИКОВА, 24					
	ул СУРИКОВА				, д 24 7П	, кв 7П
январь	0	0	0	0	0	0
Февраль	0	0	0	0	0	0
Март	0	0	0	0	0	0
Апрель	0	0	0	0	0	0
Май	0	0	0	0	0	0
Июнь	0	15696	0	0	15696	25478
Июль	0	22608	0	58820	22608	36212
Август	0	22464	0	58820	22464	36356
Сентябрь	0	30096	0	58820	30096	28724
Октябрь	0	1008	0	58820	1008	57812
Ноябрь	0	0	0	58820	0	0
Декабрь	0	0	0	58820	0	0

Клиент	УЛ СУРИКОВА, 24				ИТОГО	Эффект
	По показ	счетчика	льгота	льгота по нормам		
300013	УЛ СУРИКОВА, 24					
	ул СУРИКОВА				, д 24 8П	, кв 8П
январь	0	0	0	0	0	0
Февраль	0	0	0	0	0	0
Март	0	0	0	0	0	0
Апрель	0	0	0	0	0	0
Май	0	0	0	0	0	0
Июнь	0	14976	0	0	14976	24987
Июль	0	21456	0	57090	21456	35634
Август	0	21312	0	57090	21312	35778
Сентябрь	0	31248	0	57090	31248	25842
Октябрь	0	15408	0	57090	15408	41682
Ноябрь	0	0	0	57090	0	0
Декабрь	0	0	0	57090	0	0

Клиент	УЛ ЛАКИНА, 173				ИТОГО	Эффект
	По показ	счетчика	льгота	льгота по нормам		
300014	УЛ ЛАКИНА, 173					
	ул ЛАКИНА				, д 173 1П	, кв 1П
январь	0	0	0	0	0	0
Февраль	0	0	0	0	0	0
Март	0	0	0	0	0	0
Апрель	0	0	0	0	0	0
Май	0	0	0	0	0	0
Июнь	0	22176	0	0	22176	25111
Июль	0	33408	0	70930	33408	37522
Август	0	33264	0	70930	33264	37666
Сентябрь	0	39024	0	70930	39024	31906
Октябрь	0	1296	0	70930	1296	69634
Ноябрь	0	0	0	70930	0	0
Декабрь	0	0	0	70930	0	0

	При откл счетчика	По показ счетчика	Максим льгота	Фактич льгота	Максим по нормам'	ИТОГО к оплате	Эффект счетчика
Клиент	300015	УЛ ЛАКИНА, 173 ул ЛАКИНА				, д 173 2П , кв 2П	
январь	0	0	0	0	0	0	0
Февраль	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	18720	0	0	0	18720	78567
Июль	0	27936	0	0	70930	27936	47994
Август	0	27936	0	0	70930	27936	42994
Сентябрь	0	45072	0	0	70930	45072	25858
Октябрь	0	1440	0	0	70930	1440	69490
Ноябрь	0	0	0	0	70930	0	0
Декабрь	0	0	0	0	70930	0	0

Клиент	300016	УЛ ЛАКИНА, 173 ул ЛАКИНА				, д 173 3П , кв 3П	
январь	0	0	0	0	0	0	0
Февраль	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	19152	0	0	0	19152	28135
Июль	0	28800	0	0	70930	28800	42130
Август	0	28800	0	0	70930	28800	42130
Сентябрь	0	52128	0	0	70930	52128	18802
Октябрь	0	1728	0	0	70930	1728	69202
Ноябрь	0	0	0	0	70930	0	0
Декабрь	0	0	0	0	70930	0	0

Клиент	300017	УЛ ЛАКИНА, 177 ул ЛАКИНА				, д 173 4П , кв 4П	
январь	0	0	0	0	0	0	0
Февраль	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	15552	0	0	0	15552	24815
Июль	0	23328	0	0	60550	23328	37222
Август	0	23184	0	0	60550	23184	37366
Сентябрь	0	36144	0	0	60550	36144	24406
Октябрь	0	1152	0	0	60550	1152	59398
Ноябрь	0	0	0	0	60550	0	0
Декабрь	0	0	0	0	60550	0	0

Трест "Владимиргоргаз" в лице управляющего Сенюкова В И, действующего на основании доверенности № 2 от 18 10 96 выданной РАО "Владимироблгаз", в дальнейшем именуемый "Исполнитель", с одной стороны и гражданин (квартиросъемщик, собственник)

Ф И О \_\_\_\_\_

Адрес \_\_\_\_\_

Количество проживающих \_\_\_\_\_ чел Отапливаемая площадь \_\_\_\_\_ м<sup>2</sup>

именуемый в дальнейшем "Абонент", с другой стороны, на основании

а) Ордера на жилое помещение от \_\_\_\_\_ № \_\_\_\_\_, выданного \_\_\_\_\_

б) Свидетельства о праве собственности от \_\_\_\_\_ № \_\_\_\_\_, выданного \_\_\_\_\_

заключили настоящий договор о нижеследующем

### *1 Предмет договора.*

Абонент поручает, а Исполнитель принимает на себя отпуск природного газа и техническое обслуживание газового оборудования на основании договора

Отпуск газа без договора не производится

### *2 Стоимость работ и порядок расчетов*

2 1 Стоимость работ составляет сумму, исчисленную из цен действующих на момент проведения технического обслуживания, а также тарифов утверждаемых в установленном порядке

2 2 Оплата за использованный природный газ производится Абонентом до 10 числа месяца следующего за отчетным

2 3 Оплата за техническое обслуживание производится Абонентом Исполнителю до 10 числа месяца, следующего за месяцем, в котором произведено обслуживание Размер платы устанавливается с учетом индекса потребительских цен

2 4 При изменении в установленном порядке цен на природный газ Исполнителем производится перерасчет Абонент оплачивает по утвержденной на день оплаты цене

2 5 Сумма оплаченная за газ без отметки показаний счетчика на квитанции не засчитывается к оплате В случае изменения тарифа в период отсутствия показаний счетчика, сумма оплаты Абонентом за газ исчисляется по последнему тарифу

2 6 Отсутствие ежемесячных квитанций об оплате за газ, а также показаний счетчика на квитанции не дает оснований для предоставления Абоненту льгот по оплате за газ

### *3 Обязанности сторон*

Стороны обязуются выполнять условия настоящего договора надлежащим образом

#### **3 1 Исполнитель обязуется**

3 1 1 Обеспечивать бесперебойную подачу природного газа Абоненту Перерыв в подаче газа допускается в случае аварийных ситуаций на газопроводе наступления форс-мажорных обстоятельств, ремонта газовых сетей или оборудования а также в случаях предусмотренных п 4 3 настоящего договора

3 1 2 Выполнять ремонт газового оборудования по вызову Абонента с оплатой в соответствии с действующими расценками

3 1 3 Обслуживать наружный газопровод и сооружения на нем

3 1 4 Проводить периодическое техническое обслуживание, ремонт и поверку газового оборудования в согласованные сторонами сроки

Периодичность обслуживания - раз в один-три года в соответствии с Правилами технической эксплуатации газового оборудования

#### **3 2 Абонент обязуется**

3 2 1 Неукоснительно соблюдать Правила пользования газом в быту

3 2 2 Не допускать самовольного нарушения сохранности пломб и заглушек на газовом оборудовании

3 2 3 Не производить ремонт ВДГО своими силами

3 2 4 Обеспечивать Исполнителю беспрепятственный доступ с 8 до 22 часов, а в аварийных ситуациях - круглосуточно для осмотра ремонта газовых приборов, а также проверки показаний газовых счетчиков на основании предъявленного служебного удостоверения

3 2 5 При изменении величины отапливаемой площади и количества проживающих лиц Абонент извещает Исполнителя в течение трех дней со дня произведенного изменения

3 2 6 Своевременно оплачивать за поставленный Исполнителем природный газ и проведенное техобслуживание и ремонт

55

#### 4 Ответственность сторон.

4.1 За невыполнение либо ненадлежащее выполнение обязательств по настоящему договору стороны несут ответственность в соответствии с действующим законодательством

4.2 При неоплате в установленные п. п. 2.2 и 2.3 настоящего договора сроки Абонент уплачивает Исполнителю пеню в размере 1 процента от суммы просроченного платежа за каждый день просрочки

4.3 При отсутствии оплаты в течение двух месяцев со дня сроков, установленных настоящим договором, подача газа Абоненту прекращается

Повторное включение газа осуществляется Исполнителем за отдельную плату после погашения задолженности и оплаты стоимости повторного включения подачи газа

4.4 За пользование газом минуя газовый счетчик, самовольную перестановку и монтаж дополнительного газового оборудования Абонент несет ответственность в соответствии с действующим законодательством РФ

4.5 При несообщении Исполнителю сведений, указанных в п. 3.2.5 настоящего договора а также нарушение п. 4.4 договора Абонент уплачивает штраф Исполнителю в размере 100 % суммы, которая превысила размер платы, существующей до наступления указанных изменений

Уплата штрафа не освобождает Абонента от оплаты стоимости израсходованного газа

#### 5 Особые условия

5.1 При некачественном выполнении работ Исполнитель обязуется в течение 3-х дней со дня получения от Абонента заявки на некачественное проведение Исполнителем названных работ произвести вновь техническое обслуживание или ремонт без дополнительной оплаты

5.2 \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

#### 6 Порядок разрешения споров

6.1 Споры и разногласия которые могут возникнуть при исполнении настоящего договора будут по возможности разрешаться путем переговоров между сторонами

6.2 В случае невозможности разрешения споров путем переговоров стороны разрешат их в установленном порядке

#### 7 Срок действия договора.

7.1 Настоящий договор заключен на срок с \_\_\_\_\_ по 31 декабря 199 \_\_\_\_ г

7.2 Настоящий договор составлен в двух подлинных экземплярах по одному для каждой из сторон и имеет одинаковую юридическую силу

7.3 Договор считается продленным на новый период, если ни одна из сторон по настоящему договору за месяц до окончания срока действия договора не заявит о его расторжении или изменении

**“ИСПОЛНИТЕЛЬ”**

Трест “Владимиргоргаз”  
600017, г Владимир,  
ул Краснознаменная, 3  
тел 23 60 37

Управляющий трестом  
“Владимиргоргаз”

Подпись \_\_\_\_\_

М П

**“АБОНЕНТ”**

Ф И О \_\_\_\_\_  
паспорт серии \_\_\_\_\_ № \_\_\_\_\_  
выдан \_\_\_\_\_

1 экземпляр договора получил

Подпись \_\_\_\_\_

С Правилами пользования газом в быту ознакомлен и обязуюсь их выполнять

**Master Meter Efficiency in the period 02/07/97 till 09/30/97**

Heat Condit	Meter Type	NN	Address	Instal Date	Numb resid	Consumption for period		Efficiency cub meter	Billed for period		Efficiency rubles	Efficiency %	Avarage %	Avarage buildings	Avarage heat.type	
						w/out meter	with meter		w/out meter	with meter						
good	AL1000	1	167a Lakina St.En 1	02/07/97	108	9998	4575	5423	1441337	658800	782537	54	55	51 5		
	AL1000	2	167a Lakina St En 2	02/07/97	111	10232	4126	6106	1475180	594144	881036	60				
	AL1000	3	167a Lakina St.En 3	02/01/97	102	9530	4706	4724	1373867	677664	696203	51				
good	AL1000	4	171a Lakina St.En 1	02/11/97	118	10822	5672	5150	1560213	816768	743445	48	48			
	AL1000	5	171a Lakina St.En 2	02/11/97	114	10455	5627	4828	1507324	810288	697036	46				
	AL1000	6	171a Lakina St.En 3	02/13/97	115	10449	5265	5184	1506336	758160	748176	50				
poor	AL425	7	24 Sunkova St.En 1	05/01/97	41	1952	1162	790	281356	167328	114028	41	50	47 5	50 1	
	AL425	8	24 Sunkova St En 2	06/01/97	31	1476	968	508	212732	139392	73340	34				
	AL425	9	24 Sunkova St.En 3	06/01/97	45	2142	788	1354	308805	113472	195333	63				
	AL425	10	24 Sunkova St.En 4	06/01/97	35	1666	993	673	240182	142992	97190	40				
	AL425	11	24 Sunkova St.En 5	06/01/97	33	1571	906	665	226457	130464	95993	42				
	AL425	12	24 Sunkova St.En 6	06/01/97	36	1714	959	755	247044	138096	108948	44				
	AL425	13	24 Sunkova St.En 7	06/01/97	34	1510	631	879	217634	90864	126770	58				
poor	AL425	14	24 Sunkova St.En 8	06/09/97	33	1465	618	847	211233	88992	122241	58	52 75			
	AL425	15	173 Lakina St.En 1	06/10/97	41	1804	888	916	260077	127872	132205	51				
	AL425	16	173 Lakina St.En 2	06/10/97	41	1804	831	973	260077	119664	140413	54				
	AL425	17	173 Lakina St.En 3	06/10/97	41	1804	895	909	260077	128880	131197	50				
			AL425	18	173 Lakina St.En 4	06/10/97	35	1540	682	858	222017	98208	123809	56		
			TOTAL			1114	81934	40292	41542	11811948	5802048	6009900				

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GROUP I DATABASE

ACCOUNT NUMBER 0000			Indicator					
<u>Technical Conditions</u>								
Category Type Code	Description	Maximum Quantity	Register Code	Installation Date	Cataloge Code	Disconnection Date	Unit Code	Equipment Code
0000	Gas Stove	0000	0000	00/00/00	0000	00/00/00	0000	0000
0000	Boiler	0000	0000	00/00/00	0000	00/00/00	0000	0000
0000	Resid Meter	0000	0000	00/00/00	0000	00/00/00	0000	0000
0000	People Living	0000	0000	00/00/00	0000	00/00/00	0000	0000
0000	Heated Area	0000	0000	00/00/00	0000	00/00/00	0000	0000
<u>Subsidies and Equipment Disconnections</u>								
Equipment Code	Disconnection Date	Connection Date	Number of disconnections	Reasons	Executor Code	Executor		
0000	00/00/00	00/00/00	0000	Veteran	0000			

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<b>ACCOUNT NUMBER</b>		0000	<b>Gas Type</b>	00	<b>Gas Formula</b>	00		
<b>Meter Reading</b>								
<b>Meter</b>	<b>Date</b>	<b>Meter Reading</b>	<b>Gas Consumption</b>	<b>Temperature</b>	<b>Pressure</b>	<b>Barometric Pressure</b>	<b>Corrosion Factor</b>	<b>Executor Code</b>
00000	00/00/00	0000	0000	0000	0000	0000	0000	0000
00000	00/00/00	0000	0000	0000	0000	0000	0000	0000
00000	00/00/00	0000	0000	0000	0000	0000	0000	0000
00000	00/00/00	0000	0000	0000	0000	0000	0000	0000
00000	00/00/00	0000	0000	0000	0000	0000	0000	0000
00000	00/00/00	0000	0000	0000	0000	0000	0000	0000
00000	00/00/00	0000	0000	0000	0000	0000	0000	0000
<b>Payment for Gas</b>								
<b>Document Type</b>	<b>Number</b>	<b>Date</b>	<b>Amount</b>	<b>Credit</b>	<b>Debit</b>	<b>Basis</b>	<b>Code</b>	
Receipt	0000	00/00/00	0000	0000	0000	0000	0000	
Receipt	0000	00/00/00	0000	0000	0000	0000	0000	
Receipt	0000	00/00/00	0000	0000	0000	0000	0000	
Receipt	0000	00/00/00	0000	0000	0000	0000	0000	
Receipt	0000	00/00/00	0000	0000	0000	0000	0000	
Receipt	0000	00/00/00	0000	0000	0000	0000	0000	

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ACCOUNT NUMBER 0000		Comments				
<b>Gas Agreement</b>						
Number	Date	Amount	Paid	Balance	Type	Agreement Code
0000	00/00/00	0000	0000	0000	0000	0000
0000	00/00/00	0000	0000	0000	0000	0000
0000	00/00/00	0000	0000	0000	0000	0000
0000	00/00/00	0000	0000	0000	0000	0000
0000	00/00/00	0000	0000	0000	0000	0000
0000	00/00/00	0000	0000	0000	0000	0000
0000	00/00/00	0000	0000	0000	0000	0000
0000	00/00/00	0000	0000	0000	0000	0000
<b>Monthly Payment Register</b>						
	Start Balance as of 08/31/97		Calculation of		End balance as of 09/30/97	
	consumption	billing	consumption	billing	consumption	billing
Total	0000	0000	0000	0000	0000	0000
by fixed norms	0000	0000	0000	0000	0000	0000
by meter	0000	0000	0000	0000	0000	0000
by subsidy	0000	0000	0000	0000	0000	0000
without meter	0000	0000	0000	0000	0000	0000
economic savings	0000	0000	0000	0000	0000	0000
Equipment code	00	Disconnection reason code		00		

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ACCOUNT NUMBER	0000	Operator	00	Date of Last Editing	00/00/00			
<b>Detailed Calculation for Gas /1997</b>								
	Without Meter	Meter Reading	Subsidy Norm	Actual Subsidy	Billing with Subsidy	Fixed Norm of Consumption	Total Consumption	Total Billing
January	0000	0000	0000	0000	0000	0000	0000	0000
February	0000	0000	0000	0000	0000	0000	0000	0000
March	0000	0000	0000	0000	0000	0000	0000	0000
April	0000	0000	0000	0000	0000	0000	0000	0000
May	0000	0000	0000	0000	0000	0000	0000	0000
June	0000	0000	0000	0000	0000	0000	0000	0000
July	0000	0000	0000	0000	0000	0000	0000	0000
August	0000	0000	0000	0000	0000	0000	0000	0000
September	0000	0000	0000	0000	0000	0000	0000	0000
October	0000	0000	0000	0000	0000	0000	0000	0000
November	0000	0000	0000	0000	0000	0000	0000	0000
December	0000	0000	0000	0000	0000	0000	0000	0000
<b>Efficiency of Meter Use</b>								
Month	Cubic Meters	Rubles	Month	Cubic Meters	Rubles			
January	0000	0000	September	0000	0000			
February	0000	0000	August	0000	0000			
March	0000	0000	September	0000	0000			
April	0000	0000	October	0000	0000			
May	0000	0000	November	0000	0000			
June	0000	0000	December	0000	0000			

**ACCOUNT NUMBER 0000**

Customer Name	0000	Service Territory Number	00	Balance as of 12/31/96	0000
Street Address	0000	Date of Construction	00/00/00	Amount Billed	0000
				Amount Received	0000
				Balance as of 12/31/97	0000
Customer Class	0000				
Zip Code	0000	Phone number	0000		
Subsidy Group (if applicable)	0000	File Number	0000		

**BILLING FOR CONSUMED GAS**

Date	Consumed Gas	Amount Billed		Consumed Gas	Amount Billed		
Month							
January	0000	0000	July	0000	0000	1st Quarter	0000
February	0000	0000	August	0000	0000	2nd Quarter	0000
March	0000	0000	September	0000	0000	1st Half Year	0000
April	0000	0000	October	0000	0000	3rd Quarter	0000
May	0000	0000	November	0000	0000	4th Quarter	0000
June	0000	0000	December	0000	0000	2nd Half Year	0000
Balance as of 1/01/97	Billed annually	0000	Paid annually	0000	Balance		0000

**BILLING FOR MAINTENANCE**

Balance as of 01/01/97	0000	Billed	0000	Paid	0000	Balance as of 12/31/97	0000
------------------------	------	--------	------	------	------	------------------------	------

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[\*] ЛИЦЕВОЙ СЧЕТ [ ]

ЛИЦЕВОЙ СЧЕТ	10000	Тип газа	1	Формула по газу	1	Стр
ФИО ЛАПАСЛА И Б						
Улица 61 ГОДОВА ГОГА						
Дом 6 кв 1 Дата ввода 9 10 96						
Группа 1 Емкость						
Индекс телефон						
Льгота 1 Наиме						
АЛГ-2 НАЧИСЛЕНИЯ А ГАЗ						
31 12 97	Газ од	Начислено	Газ од	газа	Начислено	20
Январь	82	19857	Июль	9	1296	I кв 4258
Февраль	87	1990	август	0	0	II кв 3851
Март	0	3007	сентябрь	12	1072	полгода 8110
Апрель	60	9000	октябрь	0	0	III кв 310
Май	151	21744	ноябрь	0	0	IV кв
Июнь	54	7776	декабрь	0	0	полгода 310
Сальдо 1 01 19706 Начислено 812 Оплачено 119702 Итого 4278						
НАЧИСЛЕНИЯ ПО ПОСЛУЖИВАНИЮ						
Год расчета 1 12 97 Год договора 2252						
Сальдо 01 01 Начислено Оплачено 11897 Сальдо -3189						

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F5-Расчет F6-Отчет F7-Форма/таблица F8-Профилактика Введите параметр и наж

[\*] ЛИЦЕВОЙ СЧЕТ [ ]

ЛИЦЕВОЙ СЧЕТ	10050	Тип газа	1	Формула по газу	1	Стр
АЛГ-3 ПОИСКАНИЕ СЧЕТЧИКА						
Код	Дата	Показания	Тем-ра	Давление	Горометр	коэф
счетчика			град	мм рт ст	давл	корр
Метод						получ
20428	03 01 97	1074	48	0	0	1 10
20428	02 02 97	142	49	0	0	1 1
20428	12 03 97	146	?	0	0	1 1
20428	08 04 97	1587	12.7	0	0	1 1
20428	15 05 97	1804	0	0	0	1 1
20428	18 06 97	1864	0	0	0	1 1
20428	06 07 97	1877	0	0	0	1 1
20428	09 09 97	1898	0	0	0	1 1
АЛГ-4 ОПЛАТА ПО РЕАЛИЗАЦИИ						
Доц	Номер	Дата	Сумма	Итого	Кредит	Давит
						Основание
						год
Квит	11 03 97	50464	197 13	64/21	51	2252 5615
Квит	11 03 97	11897	197 13	64/21	51	2252 5624
Квит	13 03 97	1808	197 15	64/21	51	2252 5735
Квит	08 04 97	9000	197 14	64/21	51	2252 8068
Квит	15 05 97	21644	197 14	64/21	51	2252 8344

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F5-Расчет F6-Отчет F7-Форма/таблица F8-Профилактика

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ЛИЦЕВОЙ СЧЕТ 10852 Примечание ЧИСТЫЙ СЧЕТ Стр 3/5

ALТ-5 ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ

Код катег	Категория	Кол-во марши	Дате учета	Дата установки	Код по каталогу	Дата усл	Код оборуд
1	Плита 4-	1		9 10 96			30436
5	Котел	1		9 10 96			30437
8	Счетчик бытовом	1		8 10 96	600		30438
900	Прописанно людем	1		9 10 96		9 10 9	30439
1000	Отопл жилая площадь	36 6		9 10 96			30440

ALТ-6 ЛЬОТЫ И ОТКЛЮЧЕНИЯ ОБОРУДОВАНИЯ

Код оборуд	Дата отключ	Дата подкл	Кол-во отключ	Код обоснование	Код исполн	Исполн
30439	9 10 96	31 12 99	1	27		Бетераны труда

F5-Расчет F7-Форма/таблица F8-Профилактика

ЛИЦЕВОЙ СЧЕТ 10852 Примечание ЧИСТЫЙ СЧЕТ Стр. 4/5

ДОГОВОРА ПО ГАЗУ

Номер	Дате	Сумма	Оплачено	Сальдо	Тип	Код договора
	31 12 95	0	0	0		2250
	1 1 96	0	0	0		2251
	31 12 97	84272	151594	67327		2252

ОБОРОТНАЯ ВЕДОМОСТЬ

	Пач сальдо на 31 03 97 по рас оду	по начисл	Расчет рас ода	начисл	Коп сальдо на 30 09 по га	по нач
Итого	861	172	17	1872	874	
по нормам	0	0	0	0	0	
по счетчику	1157	114733	19	2736	1172	11
по льготе	292	757	6	864	298	77
без счетчика	1560	147216	12	1730	1572	198
экономия	407	82487	-7	-1006	400	81
Код оборуд/ования	0					0

F5-Расчет F6-Отчет F7-Форма/таблица F8-Профилактика Введите параметр к наж

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ЛИЦЕВОЙ СЧЕТ 1085\_ Редактор 1 Дата посл редакт 28 03 97 Стр 5'5

Подробный расчет за 1997 за год

	Бес	По	Льгот	Льгот	Нач по	Норма	Итого	Итого
	счетчика	счетчик	норма	факт	льготе	рас од	рас од	начисл.
Январь	0 *	748 *	1 2 *	66	4646	* 305 *	282	19853
Февраль	0 *	749 *	1 2 *	66	4646	* 305 *	281	19923
Март	0 *	79 *	1 2 *	70	2808	* 305 *	20	2808
Апрель	0 *	125 *	1 2 *	6	9000	* 305 *	61	9000
Май	0 *	217 *	1 2 *	66	9504	* 305 *	151	21744
Июнь	0 *	60 *	1 *	6	864	* 12 *	54	7776
Июль	0 *	15 *	1 *	0	864	* 12 *	9	1296
Авг /ст	0 *	0 *	1 *	0	0	* 12 *	0	0
Сентябрь	0 *	19 *	1 *	0	864	* 12 *	1	1072
Октябрь	0 *	0 *	210 *	0	0	* 512 *	0	0
Ноябрь	0 *	0 *	210 *	0	0	* 512 *	0	0
Декабрь	0 *	0 *	210 *	0	0	* 512 *	0	0

Эффективность внедрения счетчика

м г/в	руб	м г/в	руб	м г/в	руб	код обог			
Янв	4	1685	Май	88	22062	Сен	-7	-141	0
Фев	-44	22928	Июнь	48	-6045	Окт	0		

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GROUP C DATABASE  
(IN RUSSIAN ONLY)

21 10 97

ОТЧЕТ ПО НАЧИСЛЕНИЯМ ЗА ГАЗ

Стр 1

	При откл счетчика	По показ счетчика	Максим льгота	Фактич льгота	Максим по нормам	ИТОГО к оплате	Эффект счетчика
Клиент	300000 СЧ N 6633283						
	ул ЛАКИНА		, д 167А 1П, кв 1П				
январь	0	0	0	0	0	0	0
Февраль	0	70704	0	0	133457	70704	62753
Март	0	107280	0	0	186840	107280	79560
Апрель	0	104256	0	0	186840	104256	82584
Май	0	88848	0	0	186840	88848	97992
Июнь	0	59040	0	0	186840	59040	127800
Июль	откл с 16 06 30 07	0	0	0	186840	0	0
Август	0	121824	0	0	186840	121824	65016
Сентябрь	0	106848	0	0	186840	106848	79992
Октябрь	0	3456	0	0	186840	3456	183384
Ноябрь	0	0	0	0	186840	0	0
Декабрь	0	0	0	0	186840	0	0

Клиент	300001 СЧ N 9626633280						
	ул ЛАКИНА		, д 167А 2П, кв 2П				
январь	0	0	0	0	0	0	0
Февраль	0	73008	0	0	137164	73008	64156
Март	0	107248	0	0	192030	103248	88782
Апрель	0	98640	0	0	192030	98640	93390
Май	0	80784	0	0	192030	80784	111246
Июнь	0	58608	0	0	192030	58608	133422
Июль	откл с 16 06 30 07	3744	0	0	185835	3744	182091
Август	0	117504	0	0	192030	117504	74526
Сентябрь	0	58608	0	0	192030	58608	133422
Октябрь	0	10080	0	0	192030	10080	181950
Ноябрь	0	0	0	0	192030	0	0
Декабрь	0	0	0	0	192030	0	0

Клиент	300002 СЧ N 9626633282						
	ул ЛАКИНА		, д 167А 3П, кв 3П				
январь	0	0	0	0	0	0	0
Февраль	0	92736	0	0	157116	92736	64380
Март	0	90000	0	0	176460	90000	86460
Апрель	0	84960	0	0	176460	84960	91500
Май	0	101232	0	0	176460	101232	75228
Июнь	0	68832	0	0	176460	68832	107628
Июль	0	71280	0	0	176460	71280	105180
Август	0	71280	0	0	176460	71280	105180
Сентябрь	0	97344	0	0	176460	97344	79116
Октябрь	0	3024	0	0	176460	3024	173436
Ноябрь	0	0	0	0	176460	0	0
Декабрь	0	0	0	0	176460	0	0

	При откл счетчика	По показ счетчика	Максим льгота	Фактич льгота	Максим по нормам	ИТОГО к оплате	Эффект счетчика
Клиент	300003	СЧ N 6633284					
		ул ЛАКИНА				, д 171А 1П, кв 1П	
январь	0	0	0	0	0	0	0
Февраль	0	61488	0	0	131233	61488	69745
Март	0	109152	0	0	204140	109152	94988
Апрель	0	104976	0	0	204140	104976	99164
Май	0	106128	0	0	204140	106128	98012
Июнь	0	159840	0	0	204140	159840	44300
Июль	0	78912	0	0	204140	78912	125228
Август	0	78912	0	0	204140	78912	125228
Сентябрь	0	117360	0	0	204140	117360	86780
Октябрь	0	3888	0	0	204140	3888	200252
Ноябрь	0	0	0	0	204140	0	0
Декабрь	0	0	0	0	204140	0	0

	При откл счетчика	По показ счетчика	Максим льгота	Фактич льгота	Максим по нормам	ИТОГО к оплате	Эффект счетчика
Клиент	300004	СЧ N 6633281					
		ул ЛАКИНА				, д 171А 2П, кв 2П	
январь	0	0	0	0	0	0	0
Февраль	0	59328	0	0	126784	59328	67456
Март	0	112032	0	0	197220	112032	85188
Апрель	0	108864	0	0	197220	108864	88356
Май	0	104256	0	0	197220	104256	92964
Июнь	0	147456	0	0	197220	147456	49764
Июль	0	73296	0	0	197220	73296	123924
Август	0	73440	0	0	197220	73440	123780
Сентябрь	0	131616	0	0	197220	131616	65604
Октябрь	0	4320	0	0	197220	4320	192900
Ноябрь	0	0	0	0	197220	0	0
Декабрь	0	0	0	0	197220	0	0

	При откл счетчика	По показ счетчика	Максим льгота	Фактич льгота	Максим по нормам	ИТОГО к оплате	Эффект счетчика
Клиент	300005	СЧ N 6633285					
		ул ЛАКИНА				, д 171А 3П, кв 3П	
январь	0	0	0	0	0	0	0
Февраль	0	56448	0	0	113686	56448	57238
Март	0	108288	0	0	198950	108288	90662
Апрель	0	102960	0	0	198950	102960	95990
Май	0	95472	0	0	198950	95472	103478
Июнь	0	141984	0	0	198950	141984	56966
Июль	0	70848	0	0	198950	70848	128102
Август	0	70704	0	0	198950	70704	128246
Сентябрь	0	111456	0	0	198950	111456	87494
Октябрь	0	3600	0	0	198950	3600	195350
Ноябрь	0	0	0	0	198950	0	0
Декабрь	0	0	0	0	198950	0	0

Клиент	При откл		Максим	фактич	Максим	ИТОГО	Эффект
	Счетчика	Счетчика					
300006	УЛ СУРИКОВА, 24						
	ул СУРИКОВА					д 24 1П , кв 1П	
январь	0	0	0	0	0	0	0
Февраль	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	59328	0	0	0	59328	9238
Июль	0	30672	0	0	70930	30672	40258
Август	0	30816	0	0	70930	30816	40114
Сентябрь	0	46512	0	0	70930	46512	24418
Октябрь	0	1584	0	0	70930	1584	69346
Ноябрь	0	0	0	0	70930	0	0
Декабрь	0	0	0	0	70930	0	0

Клиент	УЛ СУРИКОВА, 24		Максим	фактич	Максим	ИТОГО	Эффект
	Счетчика	Счетчика					
300007	ул СУРИКОВА						
	ул СУРИКОВА					д 24 2П , кв 2П	
январь	0	0	0	0	0	0	0
Февраль	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	50112	0	0	0	50112	1730
Июль	0	24480	0	0	53630	24480	29150
Август	0	24336	0	0	53630	24336	29294
Сентябрь	0	40464	0	0	53630	40464	13166
Октябрь	0	1296	0	0	53630	1296	52334
Ноябрь	0	0	0	0	53630	0	0
Декабрь	0	0	0	0	53630	0	0

Клиент	УЛ СУРИКОВА, 24		Максим	фактич	Максим	ИТОГО	Эффект
	Счетчика	Счетчика					
300008	ул СУРИКОВА						
	ул СУРИКОВА					д 24 3П , кв 3П	
январь	0	0	0	0	0	0	0
Февраль	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	42912	0	0	0	42912	32343
Июль	0	21024	0	0	77850	21024	56826
Август	0	21024	0	0	77850	21024	56826
Сентябрь	0	28512	0	0	77850	28512	49338
Октябрь	0	864	0	0	77850	864	76986
Ноябрь	0	0	0	0	77850	0	0
Декабрь	0	0	0	0	77850	0	0

	При откл счетчика	По показ счетчика	Максим льгота	Фактич льгота	Максим по нормам	ИТОГО к оплате	Эффект счетчика
Клиент	300009 ул СУРИКОВА,24 ул СУРИКОВА , д 24 4п , кв 4п						
январь	0	0	0	0	0	0	0
Февраль	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	53712	0	0	0	53712	4820
Июль	0	25776	0	0	60550	25776	34774
Август	0	25920	0	0	60550	25920	34630
Сентябрь	0	37584	0	0	60550	37584	22966
Октябрь	0	1152	0	0	60550	1152	59398
Ноябрь	0	0	0	0	60550	0	0
Декабрь	0	0	0	0	60550	0	0

Клиент	300010 ул СУРИКОВА,24 ул СУРИКОВА , д 24 5п , кв 5п						
январь	0	0	0	0	0	0	0
Февраль	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	50112	0	0	0	50112	5075
Июль	0	25776	0	0	57090	25776	31314
Август	0	25776	0	0	57090	25776	31314
Сентябрь	0	28800	0	0	57090	28800	28290
Октябрь	0	9072	0	0	57090	9072	48018
Ноябрь	0	0	0	0	57090	0	0
Декабрь	0	0	0	0	57090	0	0

Клиент	300011 ул СУРИКОВА,24 ул СУРИКОВА , д 24 6п , кв 6п						
январь:	0	0	0	0	0	0	0
Февраль:	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	50976	0	0	0	50976	9228
Июль	0	24192	0	0	62280	24192	38088
Август	0	24336	0	0	62280	24336	37944
Сентябрь	0	38592	0	0	62280	38592	23688
Октябрь	0	1296	0	0	62280	1296	60984
Ноябрь	0	0	0	0	62280	0	0
Декабрь	0	0	0	0	62280	0	0

	При откл	По показ	Максим	Фактич	Максим	ИТОГО	Эффект
	счетчика	счетчика	льгота	льгота	по нормам	к оплате	счетчика
Клиент	300012	УЛ СУРИКОВА, 24					
		ул СУРИКОВА				, д 24 7П	, кв 7П
январь	0	0	0	0	0	0	0
Февраль	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	15696	0	0	0	15696	25478
Июль	0	22608	0	0	58820	22608	36212
Август	0	22464	0	0	58820	22464	36356
Сентябрь	0	30096	0	0	58820	30096	28724
Октябрь	0	1008	0	0	58820	1008	57812
Ноябрь	0	0	0	0	58820	0	0
Декабрь	0	0	0	0	58820	0	0

Клиент	300013	УЛ СУРИКОВА, 24					
		ул СУРИКОВА				, д 24 8П	, кв 8П
январь	0	0	0	0	0	0	0
Февраль	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	14976	0	0	0	14976	24987
Июль	0	21456	0	0	57090	21456	35634
Август	0	21312	0	0	57090	21312	35778
Сентябрь	0	31248	0	0	57090	31248	25842
Октябрь	0	15408	0	0	57090	15408	41682
Ноябрь	0	0	0	0	57090	0	0
Декабрь	0	0	0	0	57090	0	0

Клиент	300014	УЛ ЛАКИНА, 173					
		ул ЛАКИНА				, д 173 1П	, кв 1П
январь	0	0	0	0	0	0	0
Февраль	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	22176	0	0	0	22176	25111
Июль	0	33408	0	0	70930	33408	37522
Август	0	33264	0	0	70930	33264	37666
Сентябрь	0	39024	0	0	70930	39024	31906
Октябрь	0	1296	0	0	70930	1296	69634
Ноябрь	0	0	0	0	70930	0	0
Декабрь	0	0	0	0	70930	0	0

	При отл счетчика	По показ счетчика	Максим льгота	Фактич льгота	Максим по нормам	ИТОГО к оплате	Эффект счетчика
Клиент	300015	УЛ ЛАКИНА, 173 ул ЛАКИНА				, д 173 2П, кв 2П	
Январь	0	0	0	0	0	0	0
Февраль	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	18720	0	0	0	18720	78567
Июль	0	27936	0	0	70930	27936	47994
Август	0	27936	0	0	70930	27936	42994
Сентябрь	0	45072	0	0	70930	45072	25858
Октябрь	0	1440	0	0	70930	1440	69490
Ноябрь	0	0	0	0	70930	0	0
Декабрь	0	0	0	0	70930	0	0

	При отл счетчика	По показ счетчика	Максим льгота	Фактич льгота	Максим по нормам	ИТОГО к оплате	Эффект счетчика
Клиент	300016	УЛ ЛАКИНА, 173 ул ЛАКИНА				, д 173 3П, кв 3П	
Январь	0	0	0	0	0	0	0
Февраль	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	19152	0	0	0	19152	28135
Июль	0	28800	0	0	70930	28800	42130
Август	0	28800	0	0	70930	28800	42130
Сентябрь	0	52128	0	0	70930	52128	18802
Октябрь	0	1728	0	0	70930	1728	69202
Ноябрь	0	0	0	0	70930	0	0
Декабрь	0	0	0	0	70930	0	0

	При отл счетчика	По показ счетчика	Максим льгота	Фактич льгота	Максим по нормам	ИТОГО к оплате	Эффект счетчика
Клиент	300017	УЛ ЛАКИНА, 173 ул ЛАКИНА				, д 173 4П, кв 4П	
Январь	0	0	0	0	0	0	0
Февраль	0	0	0	0	0	0	0
Март	0	0	0	0	0	0	0
Апрель	0	0	0	0	0	0	0
Май	0	0	0	0	0	0	0
Июнь	0	15552	0	0	0	15552	24815
Июль	0	23328	0	0	60550	23328	37222
Август	0	23184	0	0	60550	23184	37366
Сентябрь	0	36144	0	0	60550	36144	24406
Октябрь	0	1152	0	0	60550	1152	59398
Ноябрь	0	0	0	0	60550	0	0
Декабрь	0	0	0	0	60550	0	0