



DEPARTMENT OF THE ARMY
ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
600 ARMY PENTAGON
WASHINGTON, DC 20310-0600

DAIM-ZA

FEB 19 2013

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Interim Guidance on the Calculation of Rates for the Sale of Utilities Services

1. References:

a. TN 420-41-1 (Revision 1), Guidance for Calculation of Rates for the Sale of Utilities Services, 21 January 1992.

b. AR 420-41, Acquisition and Sale of Utilities Services, 15 September 1990.

2. This enclosed interim guidance is provided to assist U.S. Army garrisons in achieving fair reimbursement opportunities in order to reduce the amount of appropriated funds required to purchase utilities. Installations will use the guidance to review utility acquisition invoices, calculate utilities sale rates, and properly bill reimbursable customers for utilities services. Subsequent to LTG Bostick issuing this guidance, the Assistant Secretary of the Army (Installations, Energy and Environment) issued new policy in memorandum, dated November 26, 2012, regarding utility reimbursement related to RCI partnership projects. This new memorandum should be used in conjunction with the attached guidance.

3. This guidance will be used until publication of the revised AR 420-41 and its supplemental handbook. The interim guidance supersedes reference 1a and supplements reference 1b.

4. Questions regarding the interim guidance should be directed to Mr. Brian Peckins, HQUSACE, (202) 761-0488, email: Brian.K.Peckins@usace.army.mil.

Encl

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Lieutenant General, GS
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SUBJECT: Interim Guidance on the Calculation of Rates for the Sale of Utilities Services

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**Interim Guidance
on the
Calculation of Rates for the Sale of Utilities Services
and
Utilities Contracts Invoicing/Billing**

1 November 2012

Enclosure

INTERIM GUIDANCE ON
THE CALCULATION OF RATES FOR THE SALE OF UTILITIES SERVICES
AND UTILITIES CONTRACTS INVOICING/BILLING

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**INTERIM GUIDANCE ON
THE CALCULATION OF RATES FOR THE SALE OF UTILITIES SERVICES
AND UTILITIES CONTRACTS INVOICING/BILLING**

1. **Purpose:** This interim guidance provides recommended procedures to commands and garrisons on the calculation of rates for the sale of utilities services to reimbursable customers, the review and processing of utilities acquisition invoices, and issuance of utilities sale invoices/billings.
2. **Applicability:** This interim guidance applies to all Army land holding activities in CONUS and OCONUS. It replaces any other guidance presently used by Army garrisons.
3. **References:**
 - a. AR 420-41, Facilities Engineering, Acquisition and Sale of Utilities Services, 15 September 1990.
 - b. AR 215-1, Military Morale, Welfare and Recreation Programs and Nonappropriated Fund Instrumentalities dated 24 September 2010.
 - c. AR 215-8, Army and Air Force Exchange Service Operations, 30 July 2008
 - d. Memorandum, ASA(I&E), 5 May 2004, subject: Utility Services Reimbursement Policy for Residential Communities Initiative (RCI) Partnerships.
 - e. 10 USC 2483, Commissary stores: use of appropriated funds to cover operating expenses.
 - f. 10 USC 2686, Utilities and services: sale; expansion and extension of systems and facilities.
 - g. 10 USC 2872a, Utilities and services.
 - h. 31 USC 1535, Agency agreements.
 - i. Deputy Secretary of Defense Memorandum dated 16 March 1995, Subject: Consolidation of Defense HUMINT.
 - j. December 2004 Memorandum of Understanding between the Department of Defense (DOD) and the Armed Services Young Men's Christian Association of the USA, Inc. (ASYMCA).

This interim guidance supersedes Technical Note 420-41-1 (Revision 1) dated 21 January 1992

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- k. January 2008 Memorandum of Understanding between the United States Department of Defense and the United Service Organizations, Inc.
- l. March 2009 Memorandum of Understanding between the United States Department of Defense and the American Red Cross.
- m. DODI 1015.9, Professional United States Scouting Organization Operations at United States Military Installations Located Overseas, October 31, 1990, Incorporating Change 1, June 8, 1999.
- n. DODI 1015.10, Military Morale, Welfare, and Recreation (MWR) Programs, July 6, 2009 Incorporating Change 1, May 6, 2011.
- o. DODI 1015.15, Establishment, Management, and Control of Nonappropriated Fund Instrumentalities and Financial Management of Supporting Resources, October 31, 2007, Incorporating Administrative Change 1, March 20, 2008.
- p. DODI 1330.17, Armed Services Commissary Operations, October 8, 2008.
- q. DODI 1330.21, Armed Services Exchange Regulations, July 14, 2005.
- r. DOD 1342.6-M, Administrative and Logistic Responsibilities for DOD Dependents Schools, August 11, 1995.
- s. DODD 1342.20, Department of Defense Education Activity (DODEA), October 19, 2007.
- t. DODI 4000.19, Interservice and Intragovernmental Support, August 9, 1995.
- u. DOD 5500.7-R, The Joint Ethics Regulation (JER), August 1, 1993, Change 7, November 17, 2011.
- v. DOD 7000.14-R, Department of Defense Financial Management Regulations (FMRs), various dates.
- w. Memorandum, DAIM-ZA, 10 October 2002, subject: Status of Army Reimbursable Policy (ARP) and the Army Baseline Services -AR 37-49, Budgeting, Funding, and Reimbursement for Base Operations Support of Army Activities, 15 October 1978.
- x. AR 210-22, Private Organizations on Department of the Army Installations, 22 October 2001.
- y. AR 420-1, Army Facilities Management, 12 February 2008, Rapid Action Revision (RAR), 24 August 2012.

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z. AR 930-1, Army Use of United Service Organizations, Inc., Services, 16 July 2004.

aa. AR 930-5, American National Red Cross Service Program and Army Utilization, 1 February 2005.

bb. AAFES EOP 36-1, Energy Management.

4. Discussion:

a. Recommend a minimum of 50 percent of contracts for the sales of utilities services be reviewed annually at each Army garrison as a method to increase and improve utilities reimbursement opportunities. This guidance will assist the utilities services officer and the resource management officer determine the correctness of rates and the continued necessity of the sales. Recommend utilities services rates be recalculated when the average cost of the utility services to the Army garrison increase or decrease by 10 percent. Use of the standard format provided in this guidance for rate computation is preferred; however garrisons with unique or complex utility billing situations may utilize alternative rate computation as needed. The points of contact below are available to review and assist with the rate calculations.

b. Appendices A through C provide guidance necessary to develop a standard system to compute resale utility rates to customers of Army installations as follows—

(1) Appendix A, Interim Guidance on the Calculation of Rates for the Sale of Utilities Services.

(2) Appendix B, Utility Sales Rate Calculations Template.

(3) Appendix C, Garrison Utilities Services Officer's Handbook on Utilities Contracts Invoicing/Billing.

5. Points of contact: Direct questions, or request for assistance, regarding sales of utility services on Army installations to Bob Hennessee, (256)895-1503, DSN 760-1503, email: Robert.H.Hennessee@usace.army.mil, or Bernard Givan (256)895-1275, DSN 760-1275, email: Bernard.W.Givan@usace.army.mil, U.S. Army Engineering and Support Center, Huntsville.

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**APPENDIX A
INTERIM GUIDANCE ON
THE CALCULATION OF RATES FOR THE SALE OF UTILITIES SERVICES**

A-1. Introduction

a. Purpose. This appendix explains Army general procedures for the determination of utilities sale rates.

b. Scope. Within this guidance detailed information is provided about—

- (1) Categories of customers and their rate classes.
- (2) Utility sale rate components
- (3) Determining utilities consumption
- (4) Utilities rate computations
- (5) Meter reading
- (6) Billing
- (7) Rate calculations with formats

A-2. Customer categories

There are three general customer categories: intra-Army, other DOD (non-Army) and Federal, and non-Federal organizations. These customers fit into various utilities sale rate schedules depending upon specific conditions or exemptions imposed by statute, Department of Defense (DOD) directives and instructions, and/or Army policies and regulations; utility industry fair market prices, and the Army cost of providing the utility service.

a. Intra-Army customers. Included in this major group are all buildings, structures, facilities, and activities under Army jurisdiction which are located on Army owned or leased property and operated with Army appropriated or non appropriated funds. Intra-Army customers' utilities reimbursement authorities are listed below.

(1) *General.* AR 37-49 and memorandum, DAIM-ZA, 10 October 2002, subject: Status of Army Reimbursable Policy (ARP) and the Army Baseline Services, provide the general funding reimbursement authority and policy for the host garrison provision of utilities and related services consumed or to be consumed by intra-Army customers.

(2) *Army nonappropriated fund instrumentalities (NAFI).* The DODI 1015.10, DODI 1015.15, DODI 1330.21, AR 215-1, and AR 215-8 provide the funding reimbursement authority

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and policy for the host garrison provision of utilities and related services consumed or to be consumed by Army Morale, Welfare, and Recreation (MWR) activities to include the Army and Air Force Exchange Service (AAFES) and their contractors and concessionaires.

(3) *Government-owned Army family housing (AFH)*. The AR 420-1, chapter 3 provides the reimbursement authority and policy for the reimbursement of utilities and related services by AFH, their rentals and leases.

(4) *Residential Communities Initiative (RCI) partnerships*. The 10 USC 2872a and OASA (I&E) memorandum, dated May 5, 2004, provide the reimbursement authority and policy for the host garrison provision of utilities and related services to RCI partnership projects. Additional RCI partnership utility reimbursement policy guidance can be found in AR 420-1, chapter 3.

(5) *Army Medical Command (MEDCOM)*. The DOD Financial Management Regulation (FMR) (DOD 7000.14-R, Volume 12, Chapter 21) and DODI 4000.19 provide the reimbursement authority and policy for the host garrison provision of utilities and related services consumed or to be consumed by MEDCOM.

(6) *Army National Guard (ARNG)*. The October 2002 Army Reimbursable Policy provides utilities and related services reimbursement policy for ARNG.

(7) *Army Reserve (USAR)*. The October 2002 Army Reimbursable Policy provides utilities and related services reimbursement policy for USAR.

(8) *Reserve Officers' Training Corps (ROTC)*. The October 2002 Army Reimbursable Policy provides utilities and related services reimbursement policy for ROTC.

(9) *Army Special Operations Forces*. The October 2002 Army Reimbursable Policy provides utilities and related services reimbursement policy for ARSOF.

b. Other DOD (non-Army) and Federal agencies. Included in this major customer category are the Air Force, Navy, Defense Agencies, and Federal (non DoD) agencies or activities. Other DOD (non-Army) and Federal customers' utilities reimbursement authorities are listed below.

(1) *General*. The DODI 4000.19 provides the general reimbursement authority and policy for the host garrison provision of utilities and related services consumed or to be consumed by other DOD (non-Army) and Federal customers.

(2) *Other DOD nonappropriated fund instrumentalities*. The DODI 1015.10, DODI 1015.15, and DODI 1330.21 provide the reimbursement authority and policy for the host garrison provision of utilities and related services consumed or to be consumed by DOD MWR activities.

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(3) *Defense Human Intelligence (HUMINT) Service*. The Deputy Secretary of Defense Memorandum dated 16 March 1995, provides the reimbursement authority and policy for the host garrison provision of utilities and related services consumed or be consumed by the Defense HUMINT Service.

(4) *Defense Commissary Agency (DeCA)*. The 10 USC 2483 and DODI 1330.17 provides the reimbursement authority and policy for the host garrison provision of utilities and related services consumed or be consumed by DeCA.

(5) *Department of Defense Dependents Schools located OCONUS*. The DODD 1342.20, DOD 1342.6-M, Appendix 2 and DODI 4000.19 provide the reimbursement authority and policy for the host garrison provision of utilities and related services consumed or be consumed by DODDS located OCONUS.

c. Non-Federal organizations. Included in this major customer category are lessees of industrial facilities used by lessees for private commercial purposes; military construction, Army contractors; sustainment, restoration, and modernization contractors; off-post non-Federal customers; commercial businesses; private residents; private organizations (American National Red Cross, United Service Organization, Armed Services Young Men's Christian Association); U.S. scouting organizations; public or private utility companies; and financial institutions (domestic banks, military banking facilities and credit unions). Non-Federal customers' utilities reimbursement authorities are listed below.

(1) *General*. The 10 USC 2686 and the DOD FMR (DOD 7000.14-R, Volume 11A) provide the general reimbursement authority and policy for the host garrison provision of utilities and related services consumed or be consumed by non-Federal organizations.

(2) *American National Red Cross (ARC)*. The March 2009 Memorandum of Understanding Between the United States Department of Defense and the American Red Cross, the Joint Ethics Regulation (DOD 5500.7-R), and AR 930-5 provide the reimbursement policy for the host garrison provision of utilities and related services consumed or be consumed by the American National Red Cross at Army installations.

(3) *United Service Organizations (USO)*. The January 2008 MOU between the DOD and the USO, the Joint Ethics Regulation (DOD 5500.7-R), and AR 930-1 provide the reimbursement policy for the host garrison provision of utilities and related services consumed or be consumed by the USO.

(4) *Armed Services Young Men's Christian Association (ASYMCA)*. The December 2004 MOU between the DOD and the ASYMCA as well as the Joint Ethics Regulation (DOD 5500.7-R) provide the reimbursement policy for the host garrison provision of utilities and related services consumed or to be consumed by ASYMCA.

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(5) *U.S. scouting organizations at U.S. Army controlled installations located overseas.* The DODI 1015.9 and AR 210-22 provide the reimbursement policy for the host garrison provision of utilities and related services consumed or to be consumed by scouting organizations.

(6) *Public or private utility companies.* The 10 USC 2686 and 10 USC 2916 provide the general reimbursement authority for the host garrison provision of utilities and related services to a public or private utility company.

(7) *Financial institutions.* This includes domestic banks, military banking facilities, and credit unions. The DOD Financial Management Regulation (FMR) (DOD 7000.14-R, Volume 5, Chapter 34) provides the reimbursement policy for the host garrison provision of utilities and related services consumed or to be consumed by financial institutions.

A-3. Utility sale rate components

a. Utility sale rate determination. Each utility sale rate schedule (discussed in paragraph A-4, below) contains specific cost components. These components are costs associated with utilities acquisition, production, delivery, and associated administrative and capital costs for the Army to provide utility services in a per unit of consumption basis. Some of these components may or may not apply depending on who is the customer.

b. Description of utility sale rate cost components. Explanation of the utility sale rate cost components, which are used later (see paragraphs A-4 and A-5, below) to identify specific customer applicable costs, follows.

(1) *No charge.* Although it is not a rate component, the “No Charge” designation means that there is not a charge to a specific customer for the Army garrison costs of providing utility services to the customer. Certain customers are exempted by DOD and/or Army regulation from the reimbursement for utilities and related services.

(2) *Cost of utility commodity acquisition.* The cost of the utility commodity service that the Army purchased; such as electricity, natural gas, water, sewer, etc. This is considered part of the government operation cost. Use historical costs (usually prior year cost), master planning and utility market future cost outlook data to determine the projected costs for the period of rate applicability.

(3) *Operation costs.* These are expenses for materials and labor incurred, either in-house or contract, to operate government owned utility generation and/or distribution system infrastructure. Use historical operation costs (usually prior year cost) and master planning future outlook data to determine projected operations costs for the period of rate applicability.

(4) *Maintenance costs.* These are the costs of maintaining the Government owned utility generation and/or distribution system infrastructure. For example, the cost of maintaining pipes and pumps and water tanks would be part of the water supply system’s maintenance cost.

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Use historical maintenance costs (these costs often vary a lot from year to year, therefore, average them over three to five years to avoid extreme cost swings) and master planning future outlook data to determine projected maintenance costs for the period of rate applicability.

(5) *Line losses or gains.* Line losses occur with distribution systems (electricity, natural gas, water etc). Line gains occur with collection systems. An example of a line gain would be sewer lines with cracks that allow rainwater to enter. No line losses or gains are associated with custodial service, refuse and ice because of their method of delivery. Line losses or gains related costs are usually incorporated through a percentage adjustment (see subparagraph A-7d(3), below) to the consumption quantity, which affects the unit sale rate.

(a) Electrical systems. Line losses are dependent on voltage, wire size, length of run and age or condition of the system. Calculations of line losses can be accomplished using local formulae or formulae in the National Electrical Code (NEC) or National Electrical Manufacturers Association (NEMA) Handbook.

(b) Water. Line losses are dependent on pressure, size and type of pipe, condition of joints and length of run. Calculation of line losses may be according to the National Plumbing Code or local formulas.

(c) Gas. Line losses are dependent on pressure, size and type of pipe, condition of joints and length of run.

(d) Steam, hot water. Line losses are dependent on size and type of pipe, insulation, condition of joints and length of run.

(e) Compressed air. Line losses are dependent on pressure, size and type of pipe, condition of joints and length of run.

(f) Mechanical refrigeration or air conditioning from central plants. Line losses are dependent on pressure, size and type of pipe, location (above or below ground), insulation, and length of run.

(g) Gains of Sewage Collection Systems. Infiltration (gain) varies with the length and diameter of the sewer line, its material, the care used in construction, the depth of the line below the water table, and type of joints used.

(h) Ice, garbage, refuse collection. No line losses or gains are associated with these services.

(6) *Capital charges.* Certain customers are required to pay capital charges. Capital charges are computed as 10 percent of projected capital costs for the period of the utility sale rate applicability of capital infrastructure that are considered used and useful. Capital costs include the original cost of government owned utility generation and/or distribution infrastructure plus

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any Military Construction Army (MCA) costs for improvements, conversions or upgrades already made. They also include future costs for construction improvements, conversions or upgrades that will become operational and provide utility sale service during the period of utility sale rate applicability and will be considered used and useful. The use and useful concept denotes the infrastructure capacity or portion thereof that was actually used and useful (needed) in providing utility and related services to the customer. Capital cost figures of existing infrastructure may be obtained from real property records. Capital cost figures for projected MCA improvements, conversions, or upgrades to the government owned utility infrastructure that will become operational and provide utility sale service during the period of rate applicability may be obtained from the installation master plan and construction project cost records.

(7) *Administrative overhead.* Certain customers are required to pay administrative overhead. This includes the costs of meter reading, billing, and other related administrative costs of providing the utilities services. Administrative overhead is set at 3% of the sum of unit costs for utility commodity acquisition, operation and maintenance, line losses or gains, other related costs, and capital charges.

(8) *Exclude common use infrastructure costs.* Common use infrastructure are the roads, grounds, surfaced areas, structures, real property and installed equipment directly associated with the installation's utility generation and/or distribution system that is used to provide utility services to more than one customer type. Operation, maintenance, and line losses or gains related costs associated with common use infrastructure are generally excluded from the calculations of utilities and related services sale rates applicable to Federal (intra-Army, and other DOD and Federal) customers that are required by DOD and/or Army regulations to reimburse the garrison. Exemption: operation, maintenance, and line losses or gains related costs associated with dedicated common used infrastructure to provide utility services solely to one or more Federal customers are reimbursable.

(9) *Fair market value.* Usually applicable to non-Federal customers when it is higher than the costs to the Government. In a competitive (unregulated) environment the fair market value is the average price that the customer would be able to obtain for the utility commodity to include transportation/distribution costs. In a regulated environment, the fair market value is the local prevailing rate the customer would be charged at the utility designated customer class of service if the service could have been obtained directly from the installation's utility supplier or the nearest supplier. The fair market value prices may be affected by the customer load characteristics and term of service requirements regardless of the market environment.

c. Other related costs applicability.

(1) *Other utilities costs.* These are the cost of power and other utilities that are not usually included in the garrison operation and maintenance accounts records, which are required to provide utilities and related services to customers. An example is the electric power used to

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operate water and sewer pumps. Consider these costs in the computation of the operation and maintenance cost components, as applicable, of the utilities sale rates computations.

(2) *Utilities privatization costs.* Though the Army no longer owns the Army privatized utility system infrastructure, the privatized utility infrastructure is treated as government owned for determining the costs for the sale of applicable utilities and related services to customers. Reimbursement of utilities privatization costs applies to those customers where DOD and/or Army regulations require the reimbursement for utilities services. Privatization contractors' incremental operation and maintenance contract costs will be included in charges to customers since these are normal operation and maintenance costs of the privatized system, which is needed for the furnishing of the utility service. Privatization contractor's construction improvements cost, that would have been considered military construction projects if the Army would have pursued the improvement, will be included as a capital charge when applicable. Privatized utility systems related costs that would be applicable during the period of utility sale rate applicability could be derived from the utility privatization contract or obtained from the privatization contractor.

(3) *Energy savings performance contract (ESPC)/utility energy services contract (UESC) costs.* Garrisons are permitted to recover energy savings performance contract costs or utility energy services contract costs that are directly related to the government owned utility generation and/or utility distribution infrastructure used for the furnishing of utilities and related services to applicable/affected reimbursable customers. Reimbursement of these costs applies to those customers where DOD and/or Army regulations require the reimbursement for utilities services. Directly related ESPC/UESC costs may be included in the utility sale rate if the garrison has negotiated ESPC/UESC savings baselines with the applicable or affected reimbursable customers. Government owned utility generation and/or distribution related ESPC/UESC costs that would be applicable during the period of utility sale rate applicability could be derived from the ESPC/UESC contract or obtained from the ESPC/UESC contractor.

A-4. **Army utility rate schedules**

A utility rate schedule is a rate designation applicable to specific group of customers set by the upcoming update of the AR 420-41, and other currently effective DOD and/or Army regulations. Utility rate schedule designations used in this guidance are as follows—

- a. **Rate Schedule NC – No charge.** Utilities services are provided at no cost.
- b. **Rate Schedule G1 – Government general.** Includes the costs of the utility commodity, operations, maintenance, and line losses or gains; excluding cost associated with common use infrastructure. In addition, applicable individual customers will be charged for operation, maintenance, and line losses or gains related costs associated with dedicated common used infrastructure to provide utility services solely to one or more applicable customers.

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 (Continuation)

c. Rate Schedule G2 – Government NAFI. Includes the costs of the utility commodity, operations, and line losses or gains. Unit cost rates charged will not include incremental or prorated share of overhead, maintenance, and repair to utility systems, or capital investments in the garrison's utility infrastructure systems unless otherwise specified by a sales agreement, MOA, MOU, interservice or intragovernmental support agreement.

d. Rate Schedule FH – Government owned Army family housing. Includes the costs of the utility commodity, line losses or gains, and direct costs associated with normal (recurrent) operation and maintenance of the utility distribution system outside of the family housing areas, excluding major one-time or non-recurring cost of M&R projects. (Costs of both major one-time and recurring M&R projects for the portions of the distribution system within the family housing areas are not included in the utilities unit cost rates and are charged directly to AFH.)

e. Rate Schedule PH – Privatized housing. Includes the cost of the utility commodity and direct incremental costs for operation, maintenance, line losses or gains, and capital charges of the dedicated utilities distribution infrastructure needed solely to provide support to the Residential Communities Initiative partnership projects.

f. Rate Schedule NF – Non-Federal. Includes the costs of the utility commodity, operations, maintenance, line losses or gains, capital charges and administrative overhead. This rate schedule represents the full cost to the Government for the furnishing of utilities and related services. This rate is charged to specific non-Federal customer whenever it is greater than the fair market rate (Rate Schedule FM), see subparagraph A-3b(9), above.

g. Rate Schedule FM – Fair market value. This the fair market value rate to be charged to specific non-Federal customers, see subparagraph A-3b(9), above, whenever it is greater than the full government cost rate (Rate Schedule NF).

A-5. Specific customers applicable utilities sale rate schedules

Table A-1, below, provides the specific utilities sale rate schedule applicable to a specific customer.

Table A-1
Applicable unit cost rate schedule charged by Army to customers

Customer	Utilities Sale Rate Schedule						
	NC	G1	G2	FH	PH	NF	FM
Intra-Army customers							
<i>General</i>							
Within S/CLS	X						
Above S/CLS		X					
<i>Army NAF instrumentalities</i>							
Category A	X						
Category B	X						

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Customer	Utilities Sale Rate Schedule						
	NC	G1	G2	FH	PH	NF	FM
Category C							
• CONUS							
- APF are authorized & available	X						
- APF are not authorized or available			X				
- Designated isolated remote locations	X						
- FPCON Charlie or Delta	X						
- Installation under BRAC closure	X						
• OCONUS	X						
• Sewage and garbage disposal (other services)							
- MWR Program Group I	X						
- MWR Program Groups II, III, IV, V, and VI							
+ APF are authorized & available	X						
+ APF are not authorized or available			X				
• Golf courses							
- CONUS			X				
- CONUS designated remote location	X						
- OCONUS	X						
- Sewage and garbage disposal (other services)	X						
• Golf course structures							
- Golf club house	X						
- Cart storage building, maintenance sheds, pro shop							
+ CONUS			X				
+ CONUS designated remote location	X						
+ OCONUS	X						
- Sewage and garbage disposal (other services)	X						
• AAFES							
- CONUS							
+ APF are authorized & available	X						
+ APF are not authorized or available			X				
+ Designated isolated remote locations	X						
+ FPCON Charlie or Delta	X						
+ Installation under BRAC closure	X						
+ Sewage							
= APF are authorized & available	X						
= APF are not authorized or available			X				
+ Trash and garbage disposal			X				
- OCONUS	X						
- Military clothing sales stores (MCSS)	X						
MWR & AAFES contractors/concessionaires	Same APF support as activities operated by the NAFI.						
<i>Government owned Army Family Housing</i>				X			
<i>RCI Partnership</i>					X		
<i>MEDCOM</i>		X					
<i>ARNG</i>		X					
<i>USAR</i>	X						
<i>ROTC</i>							
Within S/CLS	X						
Above S/CLS		X					

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 (Continuation)

Customer	Utilities Sale Rate Schedule						
	NC	G1	G2	FH	PH	NF	FM
<u>ARSOF</u>							
Within S/CLS	X						
Above S/CLS		X					
Mission unique requirements		X					
Other DOD (non-Army) and Federal agencies							
<u>General</u>		X					
<u>Other DOD NAF instrumentalities</u>	Follow same rate schedule guidance as Army NAF instrumentalities						
<u>Defense HUMINT Service</u>	X						
<u>DeCA</u>							
When DOD directly funds Army	X						
When DOD does not directly fund Army		X					
<u>DODDS located OCONUS</u>							
OCONUS schools		X					
Used by non-DODDS organization/activities	Utilities and related services cost shall be reduced by the applicable Other-Users-Factor (OUF) per DOD 1342.6-M						
School lunch program refuse collection/disposal	X						
Non-Federal organizations							
<u>General</u>							
FMV (LPR) > Government cost							X
Government cost > FMV (LPR)						X	
<u>American National Red Cross</u>							
Outgrant	X						
OCONUS w/COCOM CO/host nation concurrence	X						
Excessive consumption							
• FMV (LPR) > Government cost							X
• Government cost > FMV (LPR)						X	
Mission jeopardized							
• FMV (LPR) > Government cost							X
• Government cost > FMV (LPR)						X	
<u>United Service Organizations</u>							
Outgrant	X						
OCONUS w/COCOM CO/host nation concurrence	X						
Excessive consumption							
• FMV (LPR) > Government cost							X
• Government cost > FMV (LPR)						X	
Mission jeopardized							
• FMV (LPR) > Government cost							X
• Government cost > FMV (LPR)						X	
<u>Armed Services YMCA</u>							
Outgrant	X						
OCONUS w/COCOM CO/host nation concurrence	X						
Excessive consumption							
• FMV (LPR) > Government cost							X
• Government cost > FMV (LPR)						X	
Mission jeopardized							
• FMV (LPR) > Government cost							X

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 (Continuation)

Customer	Utilities Sale Rate Schedule						
	NC	G1	G2	FH	PH	NF	FM
• Government cost > FMV (LPR)						X	
<u>U.S. Scouting Organizations at Installation Overseas</u>	X						
<u>Public/Private Utility Companies</u>							
FMV (LPR) > Government cost							X
Government cost > FMV (LPR)						X	
<u>Financial Institutions</u>							
Domestics banks							
• FMV (LPR) > Government cost							X
• Government cost > FMV (LPR)						X	
Overseas MBF operated under contract	X						
Other overseas banking offices							
• FMV (LPR) > Government cost							X
• Government cost > FMV (LPR)						X	
Domestic credit unions							
• Meeting 95% military/Federal Membership req.	X						
• Not meeting 95% military/Federal Membership req.							
- FMV (LPR) > Government cost							X
- Government cost > FMV (LPR)						X	
Overseas credit unions	X						

Legend

AAFES	— Army Air Force Exchange Service
APF	— appropriated funds
ARNG	— Army National Guard
ARSOF	— Army Special Operation Forces
BRAC	— base realignment and closure
CO	— commander
COCOM	— combatant command
CONUS	— continental United States
DeCA	— Defense Commissary Agency
DOD	— Department of Defense
DODDS	— Department of Defense Dependents Schools
FPCON	— force protection condition
HUMINT	— Defense Human Intelligence
MBF	— military banking facilities
MEDCOM	— Army Medical Command
MWR	— Morale, Welfare, and Recreation
NAF	— non-appropriated fund
OCONUS	— outside the continental United States
RCI	— Residential Communities Initiative
req.	— requirement
ROTC	— Reserve officers' training Corps
S/CLS	— standard/common level of support
USAR	— U.S. Army Reserve Component
YMCA	— Young Men's Christian Association

Rate Schedules

NC	- No Charge
G1	- Government General
G2	- Government NAFI
FH	- Family Housing
PH	- Privatized Housing
NF	- Non-Federal
FM	- Fair Market Value

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A-6. Determining consumption

a. Metering. The preferred method to determine utility consumption. It is the most accurate method. Another benefit is it should motivate reimbursable customers to conserve because their usage affects their bill.

- (1) Electricity should be the first utility metered.
- (2) Army policy guidance (HQDA Executive Order 028-12) requires electric meters for—
 - (a) All reimbursable customers.
 - (b) All buildings with 29,000 square feet or more of space.
 - (c) All buildings with utility costs greater than \$35,000 per year.
- (3) Advanced meters. This means they provide details of hourly consumption and can transmit data electronically to a central point versus a directorate of public works' employee or contractor manually reading them.
- (4) Electric meters should be installed and operating by end of 2012 in accordance with Department of the Army metering guidance.
- (5) Other utilities should be metered when feasible once electric meters are installed.

b. Non-metered service. There are several methods available for estimating consumption. Select the one best suited to your situation. Recommend that each garrison use only one method for all its reimbursable customers. Four methods are discussed below in order of preference.

(1) *Engineering analysis.* Data is collected on all physical properties of the customer's facility and operations. Examples of data collected are: operating hours, population, types of equipment etc. Consumption is then determined by engineering calculations using methods and formulae from industry or government manuals.

(a) Pro. Easier to defend than other methods and no waiting for meter readings.

(b) Con. Customer has no incentive to conserve.

(2) *Temporary metering.* A temporary meter may be used to measure consumption during periods of typical use. This is a sampling method and care should be taken to select the best time to take the sample. Significant changes to the customer's operations or equipment will require re-measurement.

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(a) Pro. Better than square foot method, or comparison if done properly.

(b) Con. Customer has no incentive to conserve.

(3) *Comparison.* Can be used when there are similar buildings and one is metered and the other is not. Apply the consumption from the metered building to the one that isn't.

(a) Pro. Cheaper than installing a meter.

(b) Con. Very unfair when one building is vacant and the other isn't. Also, it gives the customer no incentive to conserve.

(4) *Square foot cost.* Calculate a square foot cost for each non-metered utility. Instead of obtaining costs per kWh, therm, kgal, etc, you should use an electric square foot rate, natural gas square foot rate, water square foot rate etc. Using the template format in Appendix B to calculate square foot rates, substitute the garrisons' total building area in square feet and substitute that for the annual utility units consumed and divide that into annual costs. Then bill the customer by multiplying their square feet of area served by the square foot utility rate.

(a) Pro. Simplest method. Easy to apply. No waiting until meters are read.

(b) Con. Probably the least precise method. No incentive for conservation.

c. *Custodial and Refuse Services.* The best way to charge for these services is to bill according to the contract. You might be able to get the vendor to break out his charges by customer on his invoice. For example, if the refuse contract shows a reimbursable customer has one dumpster that's emptied once per week at \$10 per pick up, you would bill them \$40 per month. There's no need to calculate unit costs for refuse, or custodial services as you would for electricity or water.

(1) *When contract information is available.* Use the rates per service and number of services according to the contract.

(2) *When Contract information is unavailable.* Use the square foot method when you are unable to breakdown contract information in a per customer basis.

(a) Pro. Method is simple and won't vary month-to-month.

(b) Con. Unfair. If billed by square foot method, a warehouse that receives minimal custodial service might pay more than a smaller activity that receives more services.

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(Continuation)

A-7. Rate computations

a. Required information. Generally, to compute the utilities services sales rates, you will need to gather in advance the following—

- (1) This interim guidance (for reference purposes).
- (2) Government owned utilities generating/distribution facilities directly related costs, at least, for the last 12 months (usually fiscal year).
- (3) Privatized utility systems operation, maintenance, and construction costs, if applicable.
- (4) Installation's utility acquisition bill/invoice records
- (5) Consumption records
- (6) Operating cost records
- (7) Maintenance cost records
- (8) Real property records
- (9) Applicable design code manuals or handbooks for estimating consumption when the utility service is unmetered.
- (10) In a competitive environment, utility industry trade publications for determining fair market value prices applicable to the region. In a regulated environment, the nearest utility company/suppliers tariff books for the determination of the applicable local prevailing rate to the specific customer.

b. Rates computation principle. Use historical consumption and costs (usually prior year or most recent 12 months), master planning data to determine future load/consumption requirement, and utility market future outlook data to determine the projected costs for the period of rate applicability to calculate the garrison's rates. Another option would be to calculate rates in a monthly based upon received of the monthly utility invoices.

c. Obtaining installation costs information. To obtain the installation costs for calculating resale rates—

- (1) *Purchased utility costs.* Use the invoices the garrison received for each utility. Using utility industry outlook data, adjust this cost to project any changes in the cost that would apply during the period of rate applicability.

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(Continuation)

(2) *Operations costs.* If the garrison's supply of a utility is in-house, get these costs by querying the garrison's database. Using master planning data, adjust the operations costs to include any projected operational cost changes that would be applicable for the period of rate applicability.

(3) *Maintenance costs.* Obtain these from an existing year-end report, or by a query of last years' costs. Using master planning data, adjust the maintenance costs to include any projected maintenance cost changes that would be applicable for the period of rate applicability.

d. Obtaining installation consumption information. To obtain installation consumption quantities for calculating resale rates—

(1) *For utilities that are purchased.* Obtain the quantities from the prior years' vendor invoices. For example, add up the kWhs of the prior years' electricity invoice to determine the quantity of electricity purchased. Adjust the consumption quantity for any projected load/consumption changes for the period of rate applicability.

(2) *For utilities that are produced in-house.* Obtain the quantity from the facility producing the utility, from a year-end report if one exists, or by running a query that will provide the quantities. Adjust the quantity for any projected load/consumption changes for the period of rate applicability.

(3) *Line losses or gains.* Someone on the installation should be able to tell you the percentage lost due to line-losses. For example, a boiler plant foreman should be able to provide a good estimate of how much steam is lost to line-losses. If you don't have someone who is knowledgeable about how much line loss a garrison has, use these figures:

(a) Electricity = 1%

(b) Natural gas = 2%

(c) Water = 3%

(d) Sewer = 100% of water consumed unless it is determined that all the water does not go back to the sewage system. Adjust percentage as appropriate.

(e) Steam = 12%

A-8. **Meter reading**

a. Frequency. Read the customer meter once per month. Measure the utility consumption on the same date each month, preferably at the end of one month or at the very beginning of next so billing statements can be prepared by the tenth of the month.

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(Continuation)

b. Meter multiplier. Be sure to multiply the difference in meter readings by the applicable meter multiplier to determine the proper customer consumption.

A-9. Billing

a. Preparation: The amount charged is determined by the amount consumed as determined in paragraph A-6. The specific customers' utilities sale rates and their components are determined by following explanations in paragraphs A-3 through A-5.

b. Format of billing statements send to reimbursable customers: Billing statements should be easy to read and they should provide:

- (1) Name and address of the customer
- (2) Meter serial number
- (3) Meter multiplier
- (4) Present meter reading
- (5) Prior months' meter reading
- (6) Total consumption for the billing period
- (7) If consumption was estimated (unmetered), indications of "Estimated Consumption"
- (8) Applicable utility sale rate
- (9) Total billing amount for the billing period
- (10) Bill payment due date

APPENDIX B
UTILITY SALES RATE CALCULATIONS TEMPLATE

B-1. General

Utility sales rate calculations can be completed using Microsoft Excel template. The spreadsheet templates displayed in this appendix are available for downloading at the Engineering Knowledge Online (EKO) Huntsville Center Energy Portal, Commercial Utilities Program page (https://eko.usace.army.mil/virtualteams/hnc_energy/programs/cup/).

B-2. Spreadsheet template

a. General guidance.

(1) Replace the numbers in blue font with those for your garrison. Excel will calculate the cells in green font.

(2) Use fair market value rate for Non-federal customer when the calculated non-Federal rate (rate schedule NF) is less than the fair market value rate.

b. Government owned Army family housing. Operation and maintenance for Government owned Army family housing differ from other customers. Only recurrent operation and maintenance costs of the utility distribution system outside of the family housing areas, excluding major one-time or non-recurring cost of M&R projects, will be charged. See rate schedule FH in subparagraph A-4d, above.

c. RCI operation and maintenance costs. Operation and maintenance costs that apply to Residential Communities Initiative (RCI) differ from those for other customers. Operation and maintenance costs will be charged to RCI only when it is done within the property bounds and done specifically for the benefit of RCI. See rate schedule PH in subparagraph A-4e, above.

d. NAFI exceptions.

(1) *MWR*—

(a) In general, MWR activities located OCONUS and on remote installations receive appropriated fund support for utilities. That means they are exempt from paying for utility services.

(b) In general, MWR activities that reimburse for utility services should not pay for refuse and wastewater (sewer) services. Those are provided as common services.

(c) Appendix A, table A-1, above, lists MWR activities applicable rate schedules. See AR 215-1 for MWR funding authorizations applicable to utilities and related services.

APPENDIX B
UTILITY SALES RATE CALCULATIONS TEMPLATE
(Continuation)

(2) *AAFES*—

(a) In general, AAFES activities located OCONUS and on remote installations also receive appropriated fund support.

(b) CONUS AAFES activities may also receive appropriated fund support where it is available. Otherwise, they should pay for utility services.

(c) AAFES activities that reimburse are exempt from paying for sewer services. It is provided as other service of a protective or sanitary nature. In CONUS, if appropriated funds are not available or sufficient to pay for AAFES sewer services, the installation then can bill AAFES for these services.

(d) Vending machines should be billed based on estimated consumption. Use AAFES EOP 36-1 to obtain vending machine estimated electrical consumption figures.

(e) Military clothing sales stores (MCSS) are appropriated funds activities managed by the AAFES director and chief executive officer, pursuant to applicable departmental regulations and the MOU between AAFES and the military departments. Army guidance is that the military departments will reimburse AAFES for all costs associated with MCSS construction, facility improvement, operation, and management as stipulated in the respective Service's MOU. See AR 215-8, paragraph 6-7.

(f) Appendix A, table A-1, above, lists AAFES applicable rate schedules. See AR 215-8 for AAFES funding authorizations applicable to utilities and related services.

e. Line-loss. The line-loss percentages shown are examples. Replace them with the proper ones for your garrison.

f. Sample template screenshots. Sample utilities sale rates computation template screenshots follows in the next page.

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UTILITY SALES RATE CALCULATIONS TEMPLATE
(Continuation)

Figure B-1 – Sample electric sale rates computation template screenshot.

UTILITY SALES RATES COMPUTATION WORKSHEET										
Garrison:					Service					
					ELECTRICITY					
Capitalized Cost of Facilities					Total Annual Capacity					
\$1,000,000					117,213,476					
		Work Order Number	Total Annual Cost	Annual Consumption (KWH)	<div style="border: 1px solid black; padding: 10px; background-color: #e0e0e0;"> <p style="color: blue; font-weight: bold; font-size: 1.2em;">(See) AR 420-41</p> <p style="color: blue; font-weight: bold; font-size: 1.2em;">Acquisition and Sales of Utilities Services</p> </div>					
			\$6,578,025	117,213,476						
Purchased										
Subtotal Purchased			\$6,578,025	117,213,476						
Base										
Produced										
Subtotal Produced			\$0	0						
Total Cost and Consumption			\$6,578,025	117,213,476						
Total Cost Less Military Labor			\$6,578,025							
System O&M		Maintenance	\$40,000							
Total System O&M			\$40,000	\$0						
Total O&M Cost Less Military Labor			\$40,000							
RATE CALCULATIONS										
<i>Note: Use only maintenance costs for AAFES & RCI that benefit them exclusively.</i>					Customer Classifications					
					Non-Federal					
					Organization Unit Cost	Federal Agency Unit Cost	AAFES	RCI	MWR Golf	
Basic Cost Per Unit					\$0.05612	\$0.05612	\$0.05612	\$0.05612	\$0.05612	
Line Losses <i>(Enter percentage. Normally 10% X Basic Unit Cost)</i>					1	\$0.00056	\$0.00056	\$0.00056	\$0.00056	
Maintenance Unit Cost					\$0.00034	\$0.00034	\$0.00000	\$0.00000		
Other Utility Cost					\$0.00000	\$0.00000				
Capitalized Charges					\$0.00085					
Subtotal					\$0.05788					
Administrative Overhead (3%)					\$0.00174					
Non-Federal Organization Sales Rate					\$0.05961					
Local Prevailing Rate					\$0.09500					
Federal Agency Sales Rate						\$0.05702				
AAFES Sales Rate							\$0.05668			
RCI (Privatized housing) Rate								\$0.05668		
MWR Golf Courses & Military Family Housing									\$0.05668	
Signature of Garrison Utilities Sales Officer									Date	

APPENDIX B
UTILITY SALES RATE CALCULATIONS TEMPLATE
(Continuation)

Figure B-2 – Sample natural gas sale rates computation template screenshot.

UTILITY SALES RATES COMPUTATION WORKSHEET							
Garrison:			Service				
Capitalized Cost of Facilities			NATURAL GAS				
\$1,000,000			Total Annual Capacity				
			3,046,360 Therms ¹				
	Work Order Number	Total Annual Cost	Annual Consumption	Military Labor			
Purchased (Firm)		\$4,021,234	3,046,360				
Subtotal Purchased		\$4,021,234	3,046,360				
Base Produced (Firm)		\$0	0				
Subtotal Produced		\$0	0	\$0			
Total Cost/Consumption (Firm)		\$4,021,234	3,046,360				
		\$0	0				
Interruptible Purchased							
Total Cost/Consumption (Interruptible)		\$0	0				
Total Cost/Consumption (Firm and Interruptible)		\$4,021,234	3,046,360				
Total Cost Less Military Labor		\$4,021,234					
		\$40,000					
System O&M							
Total System O&M		\$40,000		\$0			
Total O&M Cost Less Military Labor		\$40,000					
RATE CALCULATIONS							
<i>Note: Use only maintenance costs for AAFES & RCI that benefit them exclusively.</i>			Customer Classifications				
			Non-Federal Org. Unit Cost	Federal Agency Unit Cost	AAFES	RCI	MWR Golf
Basic Cost Per Unit			\$1.32001	\$1.32001	\$1.32001	\$1.32001	\$1.32001
Line Losses			\$0.02640	\$0.02640	\$0.02640	\$0.02640	\$0.02640
Maintenance Cost Per Unit			\$0.01313	\$0.01313	\$0.00000	\$0.00000	
Other Utility Cost							
Capitalized Charges			\$0.03283				
Subtotal			\$1.39237				
Administrative Overhead (3%)			\$0.04177				
Non-Federal Organization Sales Rate			\$1.43414				
Local Prevailing Rate			\$1.45000				
Federal Agency Sales Rate				\$1.35954			
AAFES Sales Rate					\$1.34641		
RCI (Privatized housing) Rate						\$1.34641	
Category C MWR Sales Rate (Golf Courses)							\$1.34641
Signature of Garrison Utilities Sales Officer			Date				

(See
AR 420-41
Acquisition
and Sales of
Utilities
Services

APPENDIX B
UTILITY SALES RATE CALCULATIONS TEMPLATE
(Continuation)

Figure B-3 – Sample water sale rates computation template screenshots.

UTILITY SALES RATES COMPUTATION WORKSHEET								
Garrison:			Service WATER					
Capitalized Cost of Facilities			Total Annual Capacity					
\$1,000,000			181,358 Kgal (Thousand Gallons)					
	Work Order Number	Total Annual Cost	Annual Consumption	Military Labor				
Purchased		\$317,375	181,358					
Subtotal Purchased		\$317,375	181,358					
Base Produced		\$420,555	365,700					
Subtotal Produced		\$420,555	365,700	\$0				
Total Cost and Consumption		\$737,930	547,058					
Total Cost Less Military Labor		\$737,930						
System O&M		\$30,000						
Total System O&M Cost		\$30,000		\$0				
Total O&M Cost Less Military Labor		\$30,000						
RATE CALCULATIONS								
<i>Note: Use only maintenance costs for AAFES & RCI that benefit them exclusively.</i>			Customer Classifications					
			Non-Federal Organization	Federal Agency	AAFES	RCI	MWR Golf	
			Unit Cost	Unit Cost				
Basic Cost Per Unit			\$1.34891	\$1.34891	\$1.34891	\$1.34891	\$1.34891	
Line Losses <i>(Enter percentage. Normally 10% X Basic Unit Cost)</i>			3	\$0.04047	\$0.04047	\$0.04047	\$0.04047	\$0.04047
Maintenance Unit Cost			\$0.05484	\$0.05484	\$0.00000	\$0.00000		
Other Utility Cost			\$0.00208	\$0.00208	\$0.00208	\$0.00208	\$0.00208	
Capitalized Charges			\$0.55140					
Subtotal			\$1.99769					
Administrative Overhead (3%)			\$0.05993					
Non-Federal Organization Sales Rate			\$2.05762					
Local Prevailing Rate			\$2.25000					
Federal Agency Sales Rate				\$1.44630				
AAFES Sales Rate					\$1.39146			
RCI (Privatized housing) Rate						\$1.39146		
MWR Golf Rate							\$1.39146	
Signature of Garrison Utilities Sales Officer				Date				

(See)
AR 420-41

Acquisition and
Sales of Utilities
Services

APPENDIX B
UTILITY SALES RATE CALCULATIONS TEMPLATE
(Continuation)

Other Utility Cost Calculation Worksheet-Water																															
Use this form to calculate the cost of "Other Utilities" used in the production and distribution of Water.																															
	Domestic Water	Industrial Water	Enter Time Selected for Qualification Period (Day, Week, Month, Quarter, or Year)																												
PART I. Quantities of Other Utilities Used (Document Assumptions)																															
<p>A. Electric</p> <p>(1) For electric motors (well pumps, tank pumps, water purification plant pumps, etc.)</p> <p>(2) For water purification plant operations</p> <p>B. Wastewater</p> <p>(1) For system cleaning, washdowns</p> <p>(2) For plant operations</p> <p>C. Natural Gas</p> <p>(1) For heating water facilities</p> <p>(2) For treatment processes</p> <p>D. Others (Central Heat, Chilled Water, Compressed Air, etc.)</p>	<p>20,000</p> <p></p> <p></p> <p></p> <p></p>	<p>KWH</p> <p>KGal</p> <p>MCF</p> <p>Units</p>																													
PART II. Cost (Use DoD Agency Sales Rate Per Unit)																															
	Enter Quantities from Part 1		Enter Basic Cost Per Unit (\$ *,*****)																												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">A. Electricity</td> <td style="width: 15%; text-align: center;">20000</td> <td style="width: 15%;">KWH</td> <td style="width: 40%;">X \$0.0570 /KWH = \$1,140</td> </tr> <tr> <td>B. Wastewater</td> <td style="text-align: center;">0</td> <td>KGal</td> <td>X \$2.4107 /KGal = \$0</td> </tr> <tr> <td>C. Natural Gas</td> <td style="text-align: center;">0</td> <td>MCF</td> <td>X \$1.3464 /Therm = \$0</td> </tr> <tr> <td>D. Other</td> <td style="text-align: center;">0</td> <td></td> <td>X /Units = \$0</td> </tr> <tr> <td></td> <td></td> <td></td> <td>X / = \$0</td> </tr> <tr> <td></td> <td></td> <td></td> <td>X / = \$0</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Total Cost \$1,140</td> </tr> </table>	A. Electricity	20000	KWH	X \$0.0570 /KWH = \$1,140	B. Wastewater	0	KGal	X \$2.4107 /KGal = \$0	C. Natural Gas	0	MCF	X \$1.3464 /Therm = \$0	D. Other	0		X /Units = \$0				X / = \$0				X / = \$0				Total Cost \$1,140			
A. Electricity	20000	KWH	X \$0.0570 /KWH = \$1,140																												
B. Wastewater	0	KGal	X \$2.4107 /KGal = \$0																												
C. Natural Gas	0	MCF	X \$1.3464 /Therm = \$0																												
D. Other	0		X /Units = \$0																												
			X / = \$0																												
			X / = \$0																												
			Total Cost \$1,140																												
Annualize the Total Cost of "Other Utilities".																															
Total Cost	\$1,140	X	Periods/Year																												
			1																												
		=	Annualized Total Cost																												
			\$1,140																												
(Example - If period selected for qualification as shown in H59 is 1 week, multiply Total Cost by 52)																															
PART III. Calculation of Other Utility Cost																															
Divide total cost (from Part II) by the total KGal purchased and produced for the same period of time and show this amount on LINE 39 of Utility Sales Rates Computation Worksheet																															
\$1,140	Divided by	547,058 KGal	= \$0.00208 /KGal																												

APPENDIX B
UTILITY SALES RATE CALCULATIONS TEMPLATE
(Continuation)

Figure B-4 – Sample wastewater (sewage) sale rates computation template screenshots.

UTILITY SALES RATES COMPUTATION WORKSHEET				
Garrison:			Service	
			WASTEWATER (Sewage Disposal)	
Capitalized Cost of Facilities			Total Annual Capacity	
\$1,000,000			172,290	Kgal (Thousand gallons)
	Work Order Number	Total Annual Cost	Annual Consumption	Military Labor
Purchased		\$439,340	172,290	
Subtotal Purchased		\$439,340	172,290	
Base Produced		\$706,524	336,440	
Subtotal Produced		\$706,524	336,440	\$0
Total Cost and Consumption		\$1,145,864	508,730	
Total Cost Less Military Labor		\$1,145,864		
System O&M		\$45,000		
Total System O&M Cost		\$45,000		\$0
Total O&M Cost Less Military Labor		\$45,000		
RATE CALCULATIONS				
Note: Use only maintenance costs for AAFES & RCI that benefit them exclusively.			Customer Classifications	
			Non-Federal Organization Unit Cost	Federal Agency Unit Cost
			RCI	
Basic Cost Per Unit			\$2.25240	\$2.25240
Line Losses <i>(Enter percentage. Normally 10% X Basic Unit Cost)</i>				
3			\$0.06757	\$0.06757
Maintenance Unit Cost			\$0.08846	\$0.08846
Other Utility Cost			\$0.00223	\$0.00223
Capitalized Charges			\$0.58042	
Subtotal			\$2.99107	
Administrative Overhead (3%)			\$0.08973	
Non-Federal Organization Sales Rate			\$3.08081	
Local Prevailing Rate			\$3.30000	
Federal Agency Sales Rate				\$2.41066
RCI Rate				\$2.41066
Military Housing & MWR Golf Sales Rate				
Signature of Base Utility Engineer				Date

(See)
AR 420-41

Acquisition and Sales of
Utilities Services

APPENDIX B
UTILITY SALES RATE CALCULATIONS TEMPLATE
(Continuation)

Other Utility Cost Calculation Worksheet-Wastewater			
Use this form to calculate the cost of "Other Utilities" used in the collection and treatment of Wastewater.			
	Domestic Wastewater	Industrial Wastewater	Enter Time Selected for Qualification Period (Day, Week, Month, Quarter, or Year)
PART I. Quantities of Other Utilities Used (Document Assumptions)			
A. Electric			<input style="width: 100px;" type="text" value="20,000"/> KWH
(1) For electric motors (well pumps, tank pumps, water purification plant pumps, etc.)			
(2) For water purification plant operations**			
B. Water			<input style="width: 100px;" type="text"/> KGal
(1) For system cleaning, washdowns			
(2) For plant operations			
C. Natural Gas			<input style="width: 100px;" type="text"/> Therms
(1) For heating water facilities			
(2) For treatment processes			
D. Others (Central Heat, Unlined Water, Compressed Air, etc.)			<input style="width: 100px;" type="text"/> Units
PART II. Cost (Use DoD Agency Sales Rate Per Unit)			
	Enter Quantities from Part 1		Enter Basic Cost Per Unit (\$ *.*****)
A. Electricity	20000	KWH	X <input style="width: 100px;" type="text" value="\$0.0567"/> /KWH = <input style="width: 100px;" type="text" value="\$1,134"/>
B. Water	0	KGal	X <input style="width: 100px;" type="text" value="\$1.3915"/> /KGal = <input style="width: 100px;" type="text" value="\$0"/>
C. Natural Gas	0	MCF	X <input style="width: 100px;" type="text" value="\$1.3464"/> /Therm = <input style="width: 100px;" type="text" value="\$0"/>
D. Other	0	Units	X <input style="width: 100px;" type="text"/> /Units = <input style="width: 100px;" type="text" value="\$0"/>
			X <input style="width: 100px;" type="text"/> / = <input style="width: 100px;" type="text" value="\$0"/>
			X <input style="width: 100px;" type="text"/> / = <input style="width: 100px;" type="text" value="\$0"/>
			X <input style="width: 100px;" type="text"/> / = <input style="width: 100px;" type="text" value="\$0"/>
			Total Cost <input style="width: 100px;" type="text" value="\$1,134"/>
Annualize the Total Cost of "Other Utilities".			
Total Cost	X	Periods/Year <input style="width: 100px;" type="text" value="1"/>	= Annualized Total Cost <input style="width: 100px;" type="text" value="\$1,134"/>
<input style="width: 100px;" type="text" value="\$1,134"/>			
<i>(Example - If period selected for qualification as shown in H39 is 1 week, multiply Total Cost by 52)</i>			
PART III. Calculation of Other Utility Cost			
<i>Divide total cost (from Part II) by the total KGal purchased and produced for the same period of time and show this amount on LINE 39 of Utility Sales Rates Computation Worksheet</i>			
<input style="width: 100px;" type="text" value="\$1,134"/>	Divided by	<input style="width: 100px;" type="text" value="508,730"/> KGal	= <input style="width: 100px;" type="text" value="\$0.00223"/> /KGal
* Includes Army owned Family Housing (non-privatized).			

APPENDIX B
UTILITY SALES RATE CALCULATIONS TEMPLATE
(Continuation)

Figure B-5 – Sample steam sale rates computation template screenshots.

UTILITY SALES RATES COMPUTATION WORKSHEET								
Name of Garrison			Service					
			STEAM					
Capitalized Cost of Facilities		(Total cost div by 10)		Total Annual Capacity				
\$285,000				225,000 Units: Klb (1,000 lbs.)				
	Work Order Number	Total Annual Cost	Annual Consumption	Military Labor				
Purchased		\$0						
Subtotal Purchased		\$0	0					
Base Produced	#2 oil	\$616,047						
	Natural gas	\$1,392,408						
	Make up water	\$25,403						
Subtotal Produced		\$2,033,858	225,000	\$0				
Total Cost and Consumption		\$2,033,858	225,000					
Total Cost Less Military Labor		\$2,033,858						
System O&M								
		\$134,203						
Total System O&M		\$134,203		\$0				
Total O&M Cost Less Military Labor		\$134,203						
RATE CALCULATIONS								
<i>Note: Use only maintenance costs for AAFES & RCI that benefit them exclusively.</i>			Customer Classifications					
			Non-Federal Organization Unit Cost	Federal Agency Unit Cost	AAFES	RCI	MWR Golf	
Basic Cost Per Unit			\$9.03937	\$9.03937	\$9.03937	\$9.03937	\$9.03937	
Line Losses <i>(Enter percentage. Normally 10% X Basic Unit Cost)</i>			15	\$1.35591	\$1.35591	\$1.35591	\$1.35591	\$1.35591
Maintenance Unit Cost			\$0.59646	\$0.59646	\$0.00000	\$0.00000	\$0.00000	
Other Utility Cost			\$0.06589	\$0.06589	\$0.06589	\$0.06589	\$0.06589	
Capitalized Charges			\$0.12667					
Subtotal			\$11.18429					
Administrative Overhead (3%)			\$0.33553					
Non-Federal Organization Sales Rate			\$11.51982					
Local Prevailing Rate								
Federal Agency Sales Rate				\$11.05762				
AAFES Sales Rate (IMCOM garrisons)					\$10.46116			
MWR Golf & Military Family Housing Sales Rate						\$10.46116		
Signature of Garrison Utilities Sales Officer						Date		

(See)
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Acquisition and Sales of Utilities Services

APPENDIX B
UTILITY SALES RATE CALCULATIONS TEMPLATE
(Continuation)

Other Utility Cost Calculation Worksheet-Central Heat, Chilled Water, Compressed Air, or Other			
Use this form to calculate the cost of "Other Utilities" used in the production and distribution of either Central Heat, Chilled Water, Compressed Air, or Other.			
	Domestic for either Central Heat, Chilled Water, Compressed Air, or other.	Industrial for either Central Heat, Chilled Water, Compressed Air, or other.	Enter Time Selected for Qualification Period (Day, Week, Month, Quarter, or Year)
PART I. Quantities of Other Utilities Used (Document Assumptions)			
<p>A. Electric</p> <p>(1) For compressors, production and distribution facilities</p> <p>(2) For plant operations</p> <p>B. Water</p> <p>(1) For system cleaning, washdowns</p> <p>(2) For plant operations</p> <p>(3) For production and distribution facilities</p> <p>C. Wastewater</p> <p>(1) For production and distribution facilities</p> <p>D. Natural Gas</p> <p>(1) For heating power production and distribution facilities</p> <p>(2) For production processes (steam production)</p> <p>E. Others (Central Heat, Chilled Water, Compressed Air, etc.)</p> <p>(1) For production and distribution facilities</p>	<p>250,000</p> <p></p> <p></p> <p></p> <p></p> <p></p> <p></p> <p></p> <p></p> <p></p>	<p>KWH</p> <p>KGal</p> <p>KGal</p> <p>MCF</p> <p>Units</p>	
* When not metered, use best engineering judgment to estimate all utility consumption.			
PART II. Cost (Use DoD Agency Sales Rate Per Unit)			
	Enter Quantities from Part 1		Enter Basic Cost Per Unit (\$ *,*****)
A. Electric	250000	KWH	X \$0.0593 /KWH = \$14,825
B. Water	0	KGal	X \$1.5410 /KGal = \$0
C. Wastewater	0	KGal	X \$2.5684 /KGal = \$0
D. Natural Gas	0	MCF	X \$1.3595 /MCF = \$0
E. Other	0	Units	X /Unit = \$0
			X / = \$0
			Total Cost \$14,825
Annualize the Total Cost of "Other Utilities".			
Total Cost	\$14,825	X	Periods/Year 1 = Annualized Total Cost \$14,825
(Example - If period selected for qualification as shown in H60 is 1 week, multiply Total Cost by 52)			
PART III. Calculation of Other Utility Cost			
Divide total cost (from Part II) by the total Units purchased and produced for the same period of time and show this amount on LINE 39 of Utility Sales Rates Computation Worksheet			
\$14,825	Divided by	225,000	Units = \$0.06589 /Unit

APPENDIX C
GARRISON UTILITIES SERVICES OFFICER'S HANDBOOK ON
UTILITIES CONTRACTS INVOICING/BILLING

C-1. Garrison Utilities Services Officer utilities contract invoicing/billing responsibilities

a. The Garrison Utilities Services Officer (Garrison UtilSO) has several responsibilities, however two major duties are—

- (1) Review, validation and approval of utility invoices.
- (2) Development of reimbursable customer utility consumption statements.

b. The goal of the Garrison UtilSO should be to pay no more than necessary for reliable utilities services (acquisition) and to bill all its sale (reimbursable) customers promptly, equitably and accurately for the services they use (sale). These utility services are: electricity, natural gas, water, sewer, steam heat and air conditioning. Sometimes refuse and custodial services are included. Generally, telephone, internet and cable services are not included as responsibilities.

c. You hold a key position in your Directorate of Public Works (DPW) impacting large sums of money. To illustrate, say a garrison budgets \$7 million annually for utilities services. The cost to the garrison is \$10 million and its customers reimburse \$3 million. However, some invoices aren't processed on time resulting in late fees of \$40,000 causing the DPW to exceed its budget. Or, you discover an activity on post which doesn't pay the DPW for the services it uses and you determine it should. You get them to enter into a reimbursable agreement with the DPW to pay for the services they use and their annual payments total \$75,000. In this instance your DPW has one-time windfall of \$75,000 plus it will have a cash flow from this source in future years.

d. This guide has two main sections covered in C-2 and C-3, below. The first covers how to approve and process utility purchase invoices. The second is how to bill reimbursable activities.

e. There are a number of procedures we'll cover for doing your job. The guidance is very simple. Keep installation utilities costs down and keep the sale payments the DPW is due coming in. If you do this, you're successful.

C-2. Purchase of utilities

a. Keep copies of contracts with utility providers. If you don't have them, ask your contracting officer for them. Contracts are helpful when disputes arise. Additionally, they could contain provisions that may impact utility energy service contracts (UESC), energy savings performance contracts (ESPC) or privatization. Last, you'll need them if audited.

b. How to approve and process utility invoices for payment.

APPENDIX C
GARRISON UTILITIES SERVICES OFFICER'S HANDBOOK ON
UTILITIES CONTRACTS INVOICING/BILLING
(Continuation)

(1) This is a guide for persons who approve and process utility invoices.

(a) *First: Verify that the utility bill is in conformance with the utility service contract billing pricing terms and conditions.* Verify the utility bill cost components are correct.

(b) *Avoid late charges.*

i. Process the utility bill promptly. Ideally within 24 hours of having received but not more than 72 hours.

ii. Check invoice date versus mail postmark. Call utility if it differs by more than a day or two, or mail was delivered late, so they're aware of the problem and extend the due date.

iii. Work with other parties at your post to ensure they can do their part. Arrange for someone else to approve invoices when you're absent and confirm that others in approval chain are available (For example: don't drop it in someone's in box if you know they're on leave).

iv. Tips: Ensure utility has correct address.

v. Request confirmation when documents are faxed to DFAS.

vi. If late fees are charged, ask the utility to waive them. Often they will.

(c) *Second: Look for prior balances.*

i. Avoid paying bill twice.

ii. Determine whether prior invoice was paid. If it was, contact utility to ensure account was credited. Subtract that payment from total due and pay only for invoice's billing period.

iii. Pay particular attention when using third party (in deregulated states) electric and natural gas marketers. Instances have occurred where marketer bills a garrison for commodity (electric, gas, etc) only to have local distributing company bill for it again on their transportation invoice.

(d) *Third: Taxes.* Generally the Army isn't taxed, so check with legal to determine whether a tax is valid. It's better to pay the tax until this is determined. Later, if it is determined to be invalid, you can request a refund, or credit for all invalid taxes paid.

APPENDIX C
GARRISON UTILITIES SERVICES OFFICER'S HANDBOOK ON
UTILITIES CONTRACTS INVOICING/BILLING
(Continuation)

(e) *Fourth: Does it make sense?* You should have a spreadsheet, or database, showing prior bills by cost and usage going back at least one year--If not, start one. Compare invoice with its counterpart from prior year, or years. Large deviations could result from billing errors (i.e.: faulty meter, incorrect meter reading, wrong multiplier, etc.). Check internally for any changes to facility or operations and then contact utility if it appears it's their error. Check meter readings on future bills to ensure they are in sequence.

(f) Two examples of utilities invoices follow (beginning in next page)—







APPENDIX C
 GARRISON UTILITIES SERVICES OFFICER'S HANDBOOK ON
 UTILITIES CONTRACTS INVOICING/BILLING
 (Continuation)

Figure C-1 – Utility service acquisition invoice example 1.

Mar 16, 2012		Customer Bill	
[REDACTED]		[REDACTED]	
Billing and Payment Summary		Explanation of Bill Detail	
Account # [REDACTED]	Due Date: Apr 10, 2012	Customer Service 1-866-591-0157	
Total Amount Due:	\$ 1,426.93	Previous Balance	782.00
To avoid a Late Payment Charge of 1.5% please pay by Apr 10, 2012 .		Payment Received	0.00
Previous Amount Due:	\$ 782.00	Balance Forward	782.00
Payments as of Mar 16:	\$ 0.00	<i>Non-Residential Service (Schedule GS-2) 02/14-03/15</i>	
<i>For service emergencies and power outages please call 1-866-DOM-HELP (1-866-366-4357). Visit us at www.dom.com.</i>		Distribution Service	
Meter and Usage		Basic Customer Charge	21.17
Usage History		Distribution Service kWh	138.90
Current Billing Days: 30	Mo Yr kWh	All Applicable Distribution Riders	1.43
Billable Usage	Mar 11 9130	Electricity Supply Svc (ESS)	201.87
Schedule GS-2 02/14-03/15	Apr 11 10760	Electricity Supply kWh	187.77
Total kWh 5709	May 11 2818	Fuel	99.39
Demand 51.0	Jun 11 7823	All Other Applicable ESS Riders	1.77
Measured Usage	Jul 11 7704	Sales and Use Surcharge	1.77
Meter: 0010044169 02/14-03/15	Aug 11 9580	Biennial Review Credit	7.37CR
Current Reading 68099	Sep 11 7834	Total Current Charges	644.93
Previous Reading 62390	Oct 11 5034	Total Account Balance	1,426.93
Total kWh 5709	Nov 11 6892	<i>View payment options, request service changes and enroll in eBill at www.dom.com, search: Manage Your Account</i>	
Current Reading 51.01	Dec 11 7737		
Demand 51.01	Jan 12 9428		
	Feb 12 6968		
	Mar 12 5709		
Important Customer Information from Dominion Virginia Power			
Your bill this month reflects a credit ordered by the Virginia State Corporation Commission during its 2011 Biennial Review of Dominion Virginia Power's costs and earnings. Please visit www.dom.com/biennial for more information.			
Your previous bill has not been paid in full. Please make payment immediately or call us if there is a problem.			
Be safe. Always look for overhead power lines before extending ladders or trimming trees.			
Mailed on Mar 19, 2012 Please detach and return this payment coupon with your check made payable to Dominion Virginia Power. Please see reverse side for mailing address change instructions.			
Bill Date Mar 16 12		Payment Coupon	
Please Pay by 04/10 \$ 1,426.93		Amount Enclosed	
		[REDACTED]	
		Account No. [REDACTED]	
078746 1 AT 0.371 T#000284		Send Payment to:	
[REDACTED]		DOMINION VIRGINIA POWER	
[REDACTED]		P O BOX 26019	
[REDACTED]		RICHMOND VA 23260-6019	
888 [REDACTED]			
		[REDACTED] PAGE 1 OF 2 81974 T	

APPENDIX C
 GARRISON UTILITIES SERVICES OFFICER'S HANDBOOK ON
 UTILITIES CONTRACTS INVOICING/BILLING
 (Continuation)

Figure C-2 – Utility service acquisition invoice example 2.

 Orange & Rockland Pike County Light & Power Co. Rockland Electric Company	390 West Route 59 Spring Valley NY 10977-5300 1-877-434-4100 www.oru.com	Page 1 of 2	
	 Your next Meter Reading will be: Aug 24	 If you have questions about this bill, call toll-free 1-877-434-4100 or go to www.oru.com	
ELECTRIC CONTRACT SERVICE		BILLING DATE 07/27/10	
Jul 26 reading (Actual) Jun 24 reading (Actual) Total Usage 32 Days	DEMAND 17089.4 17089.4 KW	ENERGY 9876094 9876094 KWH	BILLING SUMMARY ACCOUNT NUMBER Last Bill \$555,996.96 Payments: 07/20/10 -180,012.78 07/19/10 -555,996.96 Adjustments Elec Adj 180,012.78 Billing Charge 1.02 Service Charges Electric 1,054,892.07 TOTAL AMOUNT DUE \$1,054,893.09
Delivery Charges All 17089.4 KW 9.45 \$161,494.83 First 300 hrs 5126820 KWH @ 1.066 54,651.90 Next 300 hrs 4749274 KWH @ 0.744 35,334.60 Government surcharges - Delivery .00 Total Delivery Charges \$251,481.33 Government surcharges commodity .00 Hourly Commodity Charges 756,935.96 Capacity Chg 18815.7 KW @ \$2.47 46,474.78 Total Supply Charges \$803,410.74		CURRENT ELECTRIC CHARGES \$1,054,892.07	
<p><i>Price to Compare --The O&R price for providing electricity supply this month is 8.130¢ /KWH. This price includes O&R's "Total Price For Electric and "Total Merchant Function Charge." If you decide to shop for electricity supply, you should compare these charges with the prices offered by energy service companies (ESCOs). But keep in mind that O&R's Total Price for Electric Supply and Total Merchant Function Charge, you could achieve some tax savings if you switch to an ESCO for your electric supply. Additionally, if the ESCO includes its charges on your O&R bill, you will avoid paying O&R's monthly billing charge. If you buy electric supply from an ESCO, O&R will continue to deliver the electricity to you and you will continue to pay O&R for all charges associated with delivery service.</i></p> <p><i>Save on stamps, late fees and more by having your monthly payment electronically deducted from your bank account. Enroll in Automatic Bill Payment by putting an X in the box on the Bill stub and returning it with your payment. For details, visit www.oru.com/ABP</i></p>			
 Orange & Rockland SH		TOTAL AMOUNT DUE \$1,054,893.09 Amount enclosed: <input style="width: 100px; height: 20px;" type="text"/> <input type="checkbox"/> 'X' to enroll in ABP	
		PO Box 1005 Spring Valley NY 10977	
 Please Give To THE NEIGHBOR FUND: Add \$1 0036008		This bill is due on receipt. Detach and mail this portion with payment.	
			

C-3. Sale of utilities services

a. ***How to bill reimbursable customers.*** This part of the job is more complex. It involves—

- (1) Calculating utility sales rates to charge your customers,
- (2) Advising divisions and directorates that create agreements involving utility reimbursement, and
- (3) Preparing monthly billing statements.

b. ***Calculating resale rates.*** The main point to remember is the DPW shouldn't charge their customers less for utilities services than it costs to provide them. Resale rates should be recalculated whenever unit costs of utilities change significantly. Some garrisons recalculate their rates monthly. However, once per year is usually acceptable. Generally, new rates are assigned each fiscal year and should be distributed to resale customers as soon as possible so they understand the methodology and can budget accordingly.

(1) There are seven rate schedules a reimbursable customer may fall into. Of these seven, templates for three categories are included here to calculate rates are provided in Interim Guidance on Calculation of Rates for the Sale of Utilities Services (Interim Guidance).

(2) Methods to calculate resale rates are provided in Interim Guidance on Calculation of Rates for the Sale of Utilities Services which is included in this document. Note: If your garrison doesn't fit the model used in the Interim Guidance and you're unsure how to calculate rates, contact this Huntsville office for help. Also, send rate calculations here for approval.

c. ***Sales contracts/agreements with reimbursable customers:*** The preferred formats provided in AR 420-41 are DA Form 2099-R, Contract for Sale of Utilities Services, and DA Form 2100-R, Memorandum of Understanding (MOU) for Sale of Utilities Services. DA Form 2099 is used when contracting with non-Federal entities, and DA Form 2100 is used when selling utilities services to Federal Government activities. DA Form 2101 through 2106 are the specific utility service special provisions and are used as attachments to the DA Forms 2099 or 2100, as applicable. The DD Form 1144, Support Agreement, can be used instead of the DA Form 2100 at the discretion of the Utilities Services Officer but it will contain all general and technical information found in the DA Form 2100-R. The purpose of these sale instruments is to get a commitment from customers to pay for services and provide them cost estimates so they can program monies to pay.

(1) Update these agreements annually and keep them for your records. Share this information with your Resource Management Division. They may need it for the Inter-Services Support Agreements (ISSAs) and Military Interdepartmental Purchase Requests (MIPRs) they

APPENDIX C
 GARRISON UTILITIES SERVICES OFFICER'S HANDBOOK ON
 UTILITIES CONTRACTS INVOICING/BILLING
 (Continuation)

prepare. Also, they may be able to inform you of other activities on post that qualify as reimbursable customers that you may not be aware of.

(2) The agreement with the customer should include estimated annual usage by utility, current resale rates, how usage will be determined, plus any special provisions. Tip: the best method of measurement is meters. If you have customers without meters you should do what you can to get meters installed. Several methods of estimating use where meters don't exist (or work properly) are: basing usage on similar structures, assigning use by square footage, or sampling using temporary meters to project usage. None are as accurate as metering.

d. **Prepare monthly billing statements for resale customers:** Every month you should prepare bills for the prior month. Follow your garrisons' guidance, but generally these bills should be prepared by the 12th of the following month so you have time to receive invoices and meter readings. Depending on your garrison, it could be your duty to input these costs into GFEBs, or another database. That will produce a bill showing charges, but provides little supporting information for your customers. So you should also prepare an invoice in Excel, Access, or another format which is easier for your customers to understand. It should show how usage was determined (Meter readings, or estimates) so the correlation between usage and costs is apparent. Providing your customers with invoices that are clear and easy to understand will help you avoid delays in payment. (Tip: To help with year-end close out you may need to prepare estimated bills for the last quarter of the year. So be prepared to do this.) A sample customer invoice follows.

Figure C-3 – Sample utilities sale invoice (bill)

Page 1 Oct-07	UTILITY BILL DATA				INSTALLATION [REDACTED]	
[REDACTED]					REIMB. CO	SC
					2544 NOS.	UTIL
						REF
						\$16,526.75
						\$1,200.00
ELECTRIC						
Cur Reading	Old Reading	Difference	Multiplier	KWH	Rate	Cost
Estimate	Vending Machines					
2956	2934	22	10	14,267	\$0.0899	\$1,282.60
7583	7118	465	480	220	\$0.0899	\$19.78
				223,200	\$0.0899	\$12,891.87
						Sb Total \$14,194.25
		Less Cr Union		3,304	\$0.0899	\$297.03
						Total \$13,897.22
[REDACTED]	Class VI Store					
5364	5164	200	120	24,000	\$0.0899	\$2,157.60
WATER						
27253801	27061291	192510	0.001	192.5	\$2.1817	\$420.00
2998927	2986927	12000	0.001	12	\$2.1817	\$26.18
Estimate				14	\$2.1817	\$30.54
						Total \$446.18
GAS						
[REDACTED]	Class VI		Estimated	Therms		
				10.3		\$25.75
REFUSE						
[REDACTED]		Estimate				\$1,200.00

APPENDIX C
GARRISON UTILITIES SERVICES OFFICER'S HANDBOOK ON
UTILITIES CONTRACTS INVOICING/BILLING
(Continuation)

e. ***Check the applicable regulations for any updates.*** The regulations you should keep handy are listed in paragraph 3 of the main interim guidance document. Last, stay informed on your command's latest funding guidance.