

**BY ORDER OF THE COMMANDER
ARNOLD ENGINEERING
DEVELOPMENT COMPLEX**

**ARNOLD ENGINEERING DEVELOPMENT
COMPLEX INSTRUCTION 32-1061**



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Civil Engineering**

**PROVIDING UTILITIES TO
ARNOLD AIR FORCE BASE**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This publication defines AEDC's Utilities Management Program using guidelines provided in AFI 32-1061, Providing Utilities to U.S. Air Force Installations, 23 February 2011. This instruction defines the roles, responsibilities, processes, and procedures essential to Government management and contractor operation of utilities purchased from suppliers of electricity, natural gas, and potable water delivered to on-base users who require utilities for mission performance and base support. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) AFMAN 33-363, Management of Records, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afirms/afirms/afirms/rims/cfm>. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, Recommendation for Change of Publication; route AF IMT 847s from the field through the appropriate functional chain of command.

SUMMARY OF CHANGES

New document replaces in total previous Arnold Engineering Development Complex Instruction (AEDCI) 21-300, *Supplied Utility Management*, and supplements Air Force Instruction (AFI) 32-1061, *Providing Utilities to U.S. Air Force Installations*. This instruction applies to all Government personnel planning, performing, or providing direction towards the delivery of supplied utilities; electrical power, natural gas, and potable (drinking) water to Arnold

Engineering Development Complex (AEDC). It documents the roles and responsibilities of the AEDC Test Support Division (TSD) Civil Engineer Branch (TSDC), as well as other personnel and organizations that play a significant role in the process for utility delivery in support of the AEDC mission. While references to the AEDC Operating Contractor and utility suppliers are made herein, this document does not direct the performance of their work.

1. Responsibilities

1.1. Base Energy Manager, Engineering Section (AEDC/TSDCN):

1.1.1. Verify utility invoice for accuracy and recommend payment or other action to payment officials in the Test Support Division, Financial Analysis Branch (TSD-FMA). This process is also supported by the AEDC Operating Contractor. See Attachment 2-Verifying Utility Invoices for detailed instructions.

1.1.2. Calculate monthly and annual utility consumption and cost data and report to Major Command (MAJCOM) using Air Force Energy Reporting System (AFERS). AFERS replaced the Defense Utility Energy Reporting System (DUERS) for reporting to higher Headquarters (HQ). See Attachment 3-Utility Consumption Calculations and Reporting for detailed instructions.

1.1.3. Analyze utility data to assess progress toward AEDC, Air Force Material Command (AFMC), and Air Force (AF) goals and metrics. See Attachment 4-Reporting Utility Metrics for detailed instructions.

1.2. Deputy Base Civil Engineer (AEDC/TSDC):

1.2.1. Certify utility bills for payment after reviewing verification from Energy Manager.

1.3. Asset owners, Test Systems Sustainment Division (AEDC/TSS):

1.3.1. Work with customers to integrate and validate utility requirements. Participate in workload management meetings where these requirements are identified and validation is made (Arnold Engineering Developmental Complex Operating Instruction (AEDCOI) 21-205, *Tactical Integration Group*, and AEDCI 90-700, *Capabilities Based Planning*).

1.3.2. Ensure appropriate contractor work statements and Government roles and responsibilities are developed and approved for meter reading, participation in energy management efforts, annual review and update of supplier contracts, and other work as needed.

1.3.3. Provide feedback to AEDC customers on process improvements for efficiency and effectiveness of operations and maintenance.

1.4. Financial management and cost analysis provided by Financial Management and Comptroller Division (AEDC/FMP):

1.4.1. Determine billing rates and monthly charges for utility customers. This process is supported by Arnold's Operating Contractor. See Attachment 5-Determine Rates/Charges for Reimbursable Customers for detailed instructions.

1.5. Duties performed at all levels:

1.5.1. Ensure all proprietary or sensitive information is protected, kept in a read and write controlled server location and marked as For Official Use Only or use a more

stringent marking. Tennessee Valley Authority (TVA) considers their pricing information business sensitive and proprietary. Personnel other than AEDC Government or Operating Contractor are required to fill out and submit a Non-Disclosure Agreement for TVA five days prior to access of the pricing information.

1.5.2. All changes in rates, requirements, potential usage for both supplied and reimbursed utilities will be presented to the Base Civil Engineer (BCE), the Tactical Integration Group (TIG), and Comptroller Plans and Programs Branch (FMP).

Table 1. Records

Required Quality Record	Custodian
Recommend Rates for Reimbursable Utilities	AEDC/FMP
Bill Payment Recommendation	AEDC/TSDCN
Pay Bill	AEDC/TSD-OM
Copies of Utility Supplier Bills	AEDC/TSDC
Monthly Utility Accounts Status Reports	AEDC/TSD-OM
Utility Contracts	AFTC/PZI

RAYMOND G. TOTH, Colonel, USAF
Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AEDCI 90-700, *Capabilities Based Planning*, 10 Jul 2012

AEDCOI 21-205, *Tactical Integration Group*, 26 Jul 2010

AFI 32-1061, *Providing Utilities to US Air Force Installations*, 23 Feb 2011

ETL 11-6, *Utilities Reporting for Air Force Facilities*, 21 Jun 2011

Adopted Forms

AF3553, Utility Sales Agreement for Non-Federal Organizations

AF3554, Utility Sales Agreement for DoD Agencies And Non-Federal AGENCIES,

AF3555, Utility Sales Rates, Exhibit

AF3556, Utility Sales Rates Computation Worksheet

AF847, Recommendation for Change of Publication

Abbreviations and Acronyms

AEDC—Arnold Engineering Development Complex

AEDCI—Arnold Engineering Development Complex Instruction

AEDCOI—Arnold Engineering Development Complex Operating Instruction

AEDC/CC—Base Commander

AEDC/FMA—Financial Analysis Branch

AEDC/FMP—Plans and Programs Analysis Division

AFTC/PZI—Base Contracting Execution Division

AEDC/TSD—Test Support Division

AEDC/TSDC—Test Support Division, Civil Engineer Branch

AEDC/TSDCN—Test Support Division, Civil Engineer Branch, Engineering Section

AEDC/TSS—Test Support Squadron

AF—Air Force

AFERS—Air Force Energy Reporting System

AFI—Air Force Instruction

AFMC—Air Force Material Command

BCE—Base Civil Engineer

COR—Contracting Officer's Representative

DREMC—Duck River Electric Membership Corporation

DUERS—Defense Utility Energy Reporting System

ERPUD—Elk River Public Utility District

HQ—Headquarters

MAJCOM—Major Command

TVA—Tennessee Valley Authority

Attachment 2

VERIFYING UTILITY INVOICES

A2.1. The Energy Manager (AEDC/TSDCN) is: Responsible for verifying all utility invoices in which a utility provider is billing AEDC. The TVA.E.Main Base bill and the ERPUD.NG.Main Base bill make up more than 95% of AEDC total purchased utilities and are currently the only 2 bills that are verified monthly. A spreadsheet titled ValPow FYXX is used to complete this verification. This spreadsheet is restricted and access must be granted prior to use. The first tab of the spreadsheet contains detailed instructions, providing a list of all files needed and describing the process used to complete this task. The Utilities Manager for AEDC's Operating Contractor is also tasked with verifying AEDC utility invoices. This double-checking procedure assures that AEDC is billed correctly. The location for the ValPow FYXX spreadsheet can be found below.

A2.1.1. Location of AEDC/TSDC TVA and ERPUD verification spreadsheet:

A2.1.2. ValPow FYXX- <\\aedcfs04\ELECPOOL\TVA-SensitiveFOUO\AF-Validation>
ERPUD-currently no AF verification; Operating Contractor Utility Manager performs only verification due to simplicity of bill.

Attachment 3

UTILITY CONSUMPTION CALCULATIONS AND REPORTING

A3.1. The Energy Manager (AEDC/TSDCN): Calculates base-wide utility consumption and reports results monthly to AFMC using the AFERS. Engineering Technical Letter (ETL) 11-6, *Utilities Reporting for Air Force Facilities*, gives instruction on collecting and tracking utility data and using AFERS. The Energy Manager collects all utility bills and reports for on-base potable water production, fuel oil and propane gas purchasing, and steam and electric meter consumption. The Energy Manager uses a spreadsheet titled 20XX ARNOLD ENERGY REPORTING to calculate utility consumption. This spreadsheet is restricted and access must be granted prior to use. The first tab of the spreadsheet contains detailed instructions, providing a list of all files needed and describing the process used to complete this task. A second spreadsheet titled FYXX-UTL-WB-AR-Month is used to double check calculations and insures accuracy in calculating and reporting energy consumption. This secondary spreadsheet is emailed to AFMC each month. Locations for both spreadsheets can be found at 20XX ARNOLD ENERGY REPORTING- <\\Aedc15b1103\energy\data\DUERS>. FYXX-UTL-WB-AR-Month- <\\Aedcfs04\sd\SDF\Energy Mgmt-TSDCD\FY13\Utility Accounting and Reporting\FY13>

Attachment 4**REPORTING UTILITY METRICS**

A4.1. The Energy Manager (AEDC/TSDCN): Calculates base-wide utility consumption and reports progress toward Arnold, AFMC, and AF metrics and goals. The Energy Manager tracks metrics and goals using a spreadsheet titled 20XX ARNOLD ENERGY REPORTING. This spreadsheet is restricted and access must be granted prior to use. The first tab of the spreadsheet contains detailed instructions, providing a list of all files needed and describing the process used to complete this task. Location of the spreadsheet can be found below: 20XX ARNOLD ENERGY REPORTING- <\\Aedc15b1103\energy\data\DUERS>

Attachment 5

DETERMINING RATES/CHARGES FOR REIMBURSABLE CUSTOMERS

A5.1. AEDC/FMP performs: A cost analysis to determine all utility rates for all reimbursable customers. AFI 32-1061 refers to documents AF 3553, AF 3554, AF 3555, and AF 3556 which make up different sections of a Utility Sales Agreement. These documents calculate utility rates for reimbursable customers for all utilities except electricity. Due to the level of complexity found in determining the electricity rate, AEDC's Operating Contractor has developed a similar spreadsheet to determine the electricity utility rate. The Operating Contractor performs initial calculations for all utility rates and the Cost Analysis Group verifies all calculations and establishes a rate schedule for all reimbursable customers. Forms AF 3553, AF 3554, AF 3555, and AF 3556 can be found at <http://www.usa-federal-forms.com/usaf.html>. AEDC/FMP is also supported by AEDC's Operating Contractor when determining monthly consumption charges. When meters are unavailable, yearly calculations are performed to establish estimates for individual customers. When meters are available, both AF and Contractor authorize meter readings to insure accurate charges to customers. Previous months/years values are used to estimate and/or validate consumption values.