

**BY ORDER OF THE  
SECRETARY OF THE AIR FORCE**

**DEPARTMENT OF THE AIR FORCE  
MANUAL 32-1061**



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**Civil Engineering**

**PROVIDING UTILITIES TO  
DEPARTMENT OF THE AIR FORCE  
INSTALLATIONS**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This Department of the Air Force Manual (DAFMAN) implements Air Force Policy Directive (AFPD) 32-10, *Installations and Facilities*; interfaces with policy and responsibilities found in AFPD 90-17, *Energy and Water Management*; and supplements Department of the Air Force Instruction (DAFI) 90-1701, *Installation Energy and Water Management*. This manual applies to managing, supplying, purchasing, acquiring, and selling utility services and commodities; measuring utility system performance; privatizing utility infrastructure; and managing privatized utility infrastructure on Department of the Air Force (DAF) installations. This publication applies to all DAF civilian employees and uniformed members of the Regular Air Force, the Air Force Reserve (AFR), the Air National Guard (ANG), the United States Space Force (USSF), the Civil Air Patrol when conducting missions as the official Air Force Auxiliary, all DAF civilian employees, and those with a contractual obligation to abide by the terms of DAF issuances. Ensure all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and are disposed in accordance with (IAW) the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the DAF Form 847, *Recommendation for Change of Publication*; route DAF Forms 847 from the field through the appropriate functional chain of command. Compliance with the attachments in this publication is mandatory. The authorities to waive wing, unit, or delta level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval

authority, or alternately, to the publication OPR for non-tiered compliance items. See DAFMAN 90-161, *Publishing Processes and Procedures*, for a description of the authorities associated with the tier numbers.

## ***SUMMARY OF CHANGES***

This document has been substantially revised and needs to be completely reviewed. Major changes include increased requirements for utility meters and Civil Engineer control systems, cancellation of the requirement to document and report the number of utility system emergency work requests, cancellation of one of the forms for reimbursable utilities customers, and increased emphasis on management and oversight of utilities privatization contracts.

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## Chapter 1

### ROLES AND RESPONSIBILITIES

#### **1.1. The Assistant Secretary of the Air Force for Energy, Installations, and Environment (SAF/IE) will:** (may redelegate as appropriate)

1.1.1. Establish policy and oversight for installation utility and energy programs including installation energy, utility systems, and utilities privatization (UP).

1.1.2. Serve as the authority for selling utility commodities including electric, natural gas, water, sewer service, etc., to non-DAF entities in close proximity to the DAF installation. This authority is delegated as specified in [paragraph 1.9.3](#) of this DAFMAN.

1.1.3. Establish policy for placement of meters on utility systems, including electrical, natural gas, steam, and water, to measure, track, and report utility usage and consumption.

1.1.4. Identify candidates to serve as the Source Selection Authority for UP (Utilities Privatization) procurement activities in accordance with Air Force Federal Acquisition Regulation Supplement, *Source Selection*, when applicable.

1.1.4.1. Serve as the DAF approval authority for UP contracts with terms in excess of 10 years, but not to exceed 50 years.

1.1.4.2. Serve as the approval authority for exempting utility systems from UP.

1.1.4.3. Serve as the Conveyance Authority for DAF real property, including execution of bills of sale when privatizing utility systems.

1.1.5. Respond to and interact with members of Congress, congressional staffers, the Office of the Secretary of Defense, and other federal and non-federal agencies regarding DAF installations, environment, and energy.

#### **1.2. The Secretary of the Air Force General Counsel (SAF/GC) and The Judge Advocate General (AF/JA) will:** Provide legal advice and support to the Secretariat, Air Staff, Space Staff, Major Commands, Field Commands, Air Force Installation and Mission Support Center, Air Force Civil Engineer Center, and installations on utility and utilities privatization (UP) issues.

#### **1.3. Headquarters U. S. Air Force, Deputy Chief of Staff for Logistics, Engineering and Force Protection (AF/A4) will:**

1.3.1. Manage, develop, approve, and oversee directive guidance, strategies, processes, analyses, and business rules to provide utilities, including privatized utilities, at Air Force (AF) installations.

1.3.2. Develop, coordinate on, and approve responses to congressional, Office of the Secretary of Defense, Joint Staff, and other federal and non-federal agency inquiries.

1.3.3. Serve as primary Headquarters Air Force participant on the Office of the Secretary of Defense utilities, energy, and UP working groups. AF/A4 will consult with SF/COO for issues with U.S. Space Force (USSF) equity.

**1.4. Headquarters U. S. Space Force Deputy Chief of Space Operations for Operations, Cyber, and Nuclear (SF/COO) will:**

1.4.1. Manage, develop, approve, and oversee directive guidance, strategies, processes, analyses, and business rules to provide utilities, including privatized utilities, at USSF installations.

1.4.2. Develop, coordinate on, and approve responses to congressional, Office of the Secretary of Defense, Joint Staff, and other federal and non-federal agency inquiries.

**1.5. AF/JA Operations and International Law Directorate, Environmental Law and Litigation Division, Utility Law Field Support Center (AF/JAOE-ULFSC) will:**

1.5.1. Act as the primary legal advisor for utility law for the Air Force Civil Engineer Center (AFCEC) and work through, or in coordination with, the appropriate legal office to advise installations on utility law.

1.5.2. Forward notifications of purchased utility rate increases to, and request action from, the appropriate federal executive agency representative.

1.5.3. Represent DAF interests before all state utility regulatory commissions or bodies.

1.5.4. If the DAF is the assigned representative for the Federal Executive Agencies, provide support and representation to the requesting installation.

1.5.5. Provide legal support to AFCEC in accordance with [paragraph 1.8.4](#) of this DAFMAN.

**1.6. The Chiefs of the National Guard Bureau and Air Force Reserve (AF/RE) will:**

1.6.1. Develop policies, instructions, and guidance unique to their respective operations and maintenance programs and oversee management of those programs.

1.6.2. Collaborate with DAF Installation and Mission Support Center and AFCEC on issues involving Air National Guard (ANG) or Air Force Reserve (AFR) installation commanders or Base Civil Engineers.

**1.7. The Air Force Installation and Mission Support Center (AFIMSC) will:**

1.7.1. Develop resource requirements and advocate throughout the programming process for utility commodities and infrastructure, including contracted and in-house operation, maintenance, and recapitalization.

1.7.2. Provide program element monitoring to support the DAF planning, programming, and budgeting execution process for utility commodities and infrastructure.

1.7.3. Oversee and collaborate on strategic analyses and assist with data collection and validation to optimize investment strategies, processes, and guidance developed or approved by Headquarters Air Force.

1.7.4. Collaborate with AFCEC, Space Staff, Major Command staffs, Field Commands, and installations to provide leadership, guidance, and expertise to resolve utility policy, execution, and acquisition issues.

1.7.5. Advise and consult with Headquarters Air Force and the AFCEC on utility system taskers, data requests, analyses, projects, and inquiries concerning commodities, infrastructure, and UP execution.

**1.8. The Air Force Civil Engineer Center (AFCEC) (NGB/A4O for ANG) will:**

1.8.1. Serve as the executive agent for all aspects of the DAF utility system investment program including commodities, infrastructure, and UP.

1.8.2. Implement Headquarters Air Force policies and strategies to provide utilities to DAF installations, including commodities; utility services agreements; UP; and operation, maintenance, and recapitalization of utility distribution infrastructure (including operation and maintenance provided by a Base Operating Support (BOS) contractor).

1.8.3. Develop, coordinate, and manage non-directive guidance, including playbooks and DAF pamphlets for utilities and UP programs.

1.8.4. Provide technical and legal experts to assist installations with utility rate negotiation, utility services acquisitions, utility reimbursement issues, and other activities required to provide utilities to DAF installations. (May not apply to ANG installations with unique requirements regarding utility services acquisitions.)

1.8.5. Provide technical and analytic experts to assist installations with energy assurance optimization; utility system operation, maintenance, repair, and recapitalization, including requirements as appropriate in BOS and UP contracts; and performance of technical and financial analyses of utility systems.

1.8.6. Oversee, advocate for, validate, and approve any skills training for government employees (military or civilian) that may be included in UP contracts.

1.8.7. Collaborate with The Assistant Secretary of the Air Force for Energy, Installations, and Environment (SAF/IE), the DAF Director of Civil Engineers (AF/A4C), Air Force Reserve Command Civil Engineer (AFRC/A4C), Space Staff Mission Sustainment Division (SF/S4O) and contracting agents as necessary to comply with UP requirements and directives, including maintaining and updating the Office of the Secretary of Defense UP Master Database.

1.8.8. Collaborate and coordinate with the Base Civil Engineer (BCE), operations flight commander, and contracting officer's representative as necessary to accurately identify, track, and fund UP costs.

1.8.9. Collaborate and coordinate with the BCE and contracting officer's representative to conduct post-conveyance reviews to determine the effectiveness of UP contracts.

1.8.10. Assist and coordinate with the BCE, contracting officer's representative, administrative contracting officer, and system owner as necessary to finalize the installation UP Annual Five-Year Plan.

1.8.11. Validate and approve new, increased, or changing requirements in the installation UP Annual Five-Year Plan in accordance with Headquarters Air Force policy, and program the resulting total UP requirement across the Future Years Defense Program.

1.8.12. Record, track, validate, and analyze utility system performance consistent with **Chapter 6** of this DAFMAN, and report data to AFIMSC and Headquarters Air Force.

**1.9. The Installation Commander will:**

1.9.1. Ensure all aspects of providing utilities to and within the installation, including privatized utilities and BOS contracts, are planned and executed to provide all technical, logistic, legal, contractual, security, safety, and acquisition assets required to support mission assurance through energy assurance.

1.9.2. Oversee utility resiliency testing for facilities requiring mission assurance in coordination with the mission owner.

1.9.3. Approve utility sales agreements for off-base customers and family housing customers receiving utilities from the DAF. When a utility sales agreement contemplates or authorizes the approval of interconnection or net metering of customer-owned electric power generation equipment for privatized housing project owner, approval authority is delegated to the Deputy Assistant Secretary of the Air Force for Installations (SAF/IEI). When a utility sales agreement contemplates or authorizes the approval of interconnection or net metering of customer-owned electric power generation equipment for other authorized utility customers, approval authority is delegated to the Deputy Assistant Secretary of the Air Force for Environment, Safety, and Infrastructure (SAF/IEE). Approval of interconnection or net metering of privatized housing projects must be coordinated with SAF/IEE. Approval of interconnection or net metering of other authorized utility customers must be coordinated with SAF/IEI. These SAF/IEE and SAF/IEI authorities may be delegated.

1.9.4. Ensure compliance with the Status of Forces Agreement of the applicable host nation for installations outside the continental United States.

1.9.5. Review, approve, sign, and implement initial installation energy plans and annual updates.

1.9.6. Review and approve the installation development plan and annual updates in the comprehensive planning platform.  
([https://usaf.dps.mil/teams/\\_CPP/Style%20Library/Prod/home.aspx](https://usaf.dps.mil/teams/_CPP/Style%20Library/Prod/home.aspx))

1.9.7. Ensure the safe distribution of utilities throughout the installation and ensure the distribution is aligned with appropriate laws, regulations, and directives. Must require a risk assessment approved by the installation commander (or equivalent) if unit or individual is seeking to receive, use, or provide utilities in an unsupervised manner in any area, to include publicly assessable areas such as parking lots.

**1.10. The Base Civil Engineer (BCE) will:** or will delegate and notify AFCEC (NGB/A4O for ANG) of the delegee(s) in writing or by uploading the appointment memoranda on the appropriate share-point site as specified by AFCEC).

1.10.1. Acquire utility commodities at fair, non-discriminatory, cost-based rates consistent with proper standards for reliability of service, mission requirements, efficiency of operations, and health and sanitation.

1.10.2. Implement and oversee installation-level energy and water programs, goals, and reporting that ensure resiliency, optimize demand, and assure supply.

1.10.3. Implement and oversee all activities required to manage, supply, purchase, resell, and distribute utility services and commodities.



1.10.4. Implement and oversee utility rates, service agreements, and rate calculations necessary for providing and selling utility services using Next Generation Information Technology (NexGen IT) or other information technology system approved in writing by AFCEC. See [Chapter 4](#) of this DAFMAN for details.

1.10.5. Implement and oversee an installation electric utility load shifting program to shift loads from on-peak to off-peak periods when feasible.

1.10.6. Ensure technical support is provided to contracting and legal functions for all utility services contract issues.

1.10.7. Ensure technical support is provided to the contracting officer at all utility services, BOS contract and UP contract negotiations. Ensure BOS contracts and UP contracts include provisions for the BOS or UP service provider to allow AFCEC access to the systems in order to complete their oversight duties as defined in [Chapter 1 Section 1.8](#) of this DAFMAN.

1.10.8. Oversee coordination, validation, and verification that services have been received in accordance with utility services and BOS contracts, and UP contracts and agreements, and ensure information is provided to AFCEC.

1.10.9. Oversee and ensure monthly and annual utility consumption and cost data are reported accurately for use in the Annual Energy Performance and Resilience Report (AEPRR, formerly the Annual Energy Management and Resilience Report) using NexGen IT, no later than 60 days after the end of month of consumption or the end of the established billing cycle. For details on the DAF Energy Reporting System, see Air Force Pamphlet (AFPAM) 32-10144, *Implementing Utilities at U.S. Air Force Installations*.

1.10.10. Oversee and ensure utility system performance measurements are documented and reported to AFCEC monthly via the Utility System Outage Reporting and Tracking (USORT) tool. For details, see [Chapter 6](#) of this DAFMAN and AFPAM 32-10144.

1.10.11. Ensure a utility services folder is maintained for each utility purchased and produced on installation, which contains the following: general data, billing data, contract and utility provider data, utility customer data, service delivery and meter data (including calibration information), and correspondence and news articles. For more details, see [Chapter 2](#) of this DAFMAN and Attachment 3 of AFPAM 32-10144.

1.10.12. Identify and develop utility system efficiency and effectiveness opportunities and initiatives into viable projects. See [Chapter 4](#) of this DAFMAN.

1.10.13. Use advanced metered data for near real time monitoring of utility condition in line with mission owner utility reliability requirements. Also use data for utility system performance measures, outage tracking, baselining, and benchmarking to help promote energy awareness and energy analysis.

1.10.14. Ensure meters (electric, natural gas, steam, and water) are installed and connected to the advanced meter system in accordance with the latest SAF/IE guidance on DAF meter data management. Reimbursable customers should only be billed based on calibrated, verified meters.

1.10.15. Coordinate with mission owners to implement utility system-related energy and water assurance initiatives, projects, outages, and procedures to include commodity supply,

diversification, distribution, and testing of back-up and redundant systems in support of mission assurance.

1.10.16. Implement utility system-related programs to meet Department of Defense (DoD) and DAF energy resiliency and surety directives, and water reduction goals. This includes utilizing water meters to improve and report water conservation and management via facility water balancing, and advanced energy meters to optimize energy efficiency and performance in high energy intensity facilities including but not limited to data centers.

1.10.17. Ensure the squadron resource advisor or designed alternate budgets for and manages funds for purchased utility services, utilities connection fees, meter and associated CE Control System communication network and base-administered UP contracts as necessary.

1.10.18. Notify AFCEC, the administrative contracting officer, and the installation Staff Judge Advocate of purchased utility rate increases and request support from AF/JAOE-ULFSC for utility rate intervention. Note: Air National Guard units report rate increases to the Civil Engineering Technical Service Center (CETSC), NGB/A4AI, and NGB/A4OC, or as otherwise directed by the National Guard Bureau.

1.10.19. Ensure the resource advisor, installation energy manager, or delegee administers and manages the purchase or generation costs (commodity supply invoicing) and reimbursement of utilities, including timely updates for reimbursable customers when changes in a utility commodity exceeds +/- 5%.

1.10.20. Ensure monthly utility bills, including UP costs where applicable, are paid in a timely manner to minimize late fees.

1.10.21. Approve utility sales agreements for tenants or other non-governmental customers.

1.10.22. Ensure installation commander approves utility sales agreements for off-base customers and military housing customers receiving utilities from the DAF.

1.10.23. Provide, operate, and maintain government-owned electrical power, natural gas, potable water, wastewater, steam, stormwater, chilled water, hot water, industrial wastewater, and liquid fuel systems in accordance with AFMAN 32-1067, *Water and Fuel Systems*.

1.10.24. Provide, operate, and maintain government-owned real property electric power generation and distribution systems and equipment, including items assigned to the BCE and accounted for by the equipment authorized inventory data system, and real property installed equipment items (with some exceptions) as specified by AFMAN 32-1062, *Electrical Systems, Power Plants and Generators*.

1.10.25. Determine utility services requirements for installation facilities. For more information on utility services requirements, see AFPAM 32-10144.

1.10.26. Ensure potable and non-potable water source(s) are enough to support current and future water needs of the installation for the next 10 years; provide water needs assessment data to higher headquarters as necessary and update the water dashboard (Water DASH) annually.

1.10.27. Ensure there is a process or procedure in place to resolve conflicts between water requirements and availability for the installation and any geographically separated locations to include ranges that also require water.

1.10.28. Ensure the installation has a process or procedure in place for prioritizing water usage during periods of scarcity for the installation and any geographically separated locations, to include ranges that require water.

1.10.29. At installations where UP is contemplated or has been executed, the BCE will:

1.10.29.1. Assist AFCEC (NGB/A4O for ANG) and the procuring contracting officer with planning and executing UP pre-proposal conferences and industry site-visits.

1.10.29.2. Partner with AFCEC (NGB/A4O for ANG) and the procuring contracting officer to respond to questions from industry during the pre-proposal phase of UP solicitations.

1.10.29.3. Partner with AFCEC (NGB/A4O for ANG) and the procuring contracting officer to develop and update the government should-cost estimate, Section J, system inventories, and other site-specific information to be included in UP requests for proposals. Refer to the Utilities Privatization (UP) Playbook for further details <https://usaf.dps.mil/teams/10041/CEPlaybooks/UtilitiesPrivatization/Pages/PlaybookProcesses.aspx?PrintOrder=1001> (cited in Glossary of References and Supporting Information at [Attachment 1](#)).

1.10.29.4. Provide members for the UP source-selection team. For more information, refer to the UP Playbook.

1.10.29.5. Assign an Air Force government employee (not a contractor) to partner with the new system owner to develop a joint inventory of the utility system immediately after the UP contract is awarded. Ensure the completed inventory is forwarded to AFCEC (NGB/A4O for ANG) by the date specified in the UP contract, or alternatively established by AFCEC (NGB/A4O for ANG). For more information, refer to the UP Playbook.

1.10.29.6. Ensure competent and reliable primary and alternate contracting officer's representatives are appointed, trained, approved in the contracting organization's tracking system, and empowered to work closely with the administrative contracting officer.

1.10.29.7. Ensure real property records are adjusted to reflect transfer of newly privatized utility systems, and installation geospatial utility map records are updated to identify the privatized utility network to be a true reflection of the updated real property records no later than 60 days after the contract start date.

1.10.29.8. Notify the contracting officer's representative if specialty training for government craftsmen by the system owner is not meeting the terms of the UP contract, or if contract modifications are required or anticipated.

1.10.29.9. Ensure completion of the installation UP Annual Five-Year Plan in accordance with requirements outlined in [paragraph 7.6](#) of this DAFMAN.

1.10.29.10. Obtain coordination, recommendations, specifications, cost estimates, and other relevant design requirements from the system owner to construct the new utility infrastructure on any privatized utilities no later than during the planning and programming phase of all facility construction, major repair, or new mission projects (military construction, facilities sustainment restoration and modernization, etc.)

1.10.29.11. Facilitate and support post-contract award and post-conveyance activities, including post-conveyance reviews, for privatized utility systems.

**1.11. The Civil Engineer (CE) Resource Manager, Resource Advisor, or delegee will:**

1.11.1. Ensure monthly utility bills and invoices are validated, approved, and paid on time to avoid late fees.

1.11.2. Ensure funds availability for utility contract payments.

1.11.3. Identify and categorize reimbursable customers in coordination with the BCE or the delegated action officer.

1.11.4. Prepare and provide invoices and billing statements for reimbursable customers based on auditable meter data.

1.11.5. Coordinate with the BCE or the delegated action officer to ensure reimbursable customers are notified of rate changes.

**1.12. The Civil Engineer Operations Flight Commander (facility manager for ANG units) will:**

1.12.1. Ensure in-house and Base Operating Support-contracted utility system operations, maintenance, and repair is executed, and costs for labor, materials, and equipment are accurately tracked, documented, and reported monthly for reimbursement and system performance.

1.12.2. Ensure UP contract costs are accurately tracked and documented by the contracting officer's representative or program manager and reported monthly to the installation energy manager and AFCEC (CETSC for ANG).

1.12.3. Ensure meter readings are reported monthly to the installation energy manager and the meter sampling rate is adjusted to meet utility reliability requirements of the mission owner. This sampling rate is to be no less than one time per hour. (**Note:** see FY20 National Defense Authorization Act (NDAA) and FY21 NDAA (10 USC (United States Code) §2920, *Energy resilience and energy security measures on military installations*) mandating the 1x/hour and in line with mission needs).

1.12.4. Review customer work tasks and facility projects and maintenance service contract data for utility requirements.

1.12.5. Ensure meter readings are performed and reported manually when automatic reading capability does not exist. Highlight where it is cost effective to extend the DAF Civil Engineer Control System network to automate these meters.

1.12.6. Ensure a government employee documents and reports monthly utility system performance measurement data to AFCEC (CETSC for ANG units) in accordance with [Chapter 6](#) of this DAFMAN.

1.12.7. Estimate utility requirements and prepare utility services specifications when driven by changes to facility infrastructure.

1.12.8. Coordinate with the unit training manager to assess the effectiveness of any required government employee training provided by the system owner per the UP contract. Address any

required additions or changes with the contracting officer's representative for possible modification of the UP contract.

1.12.9. Keep facility managers (building managers for ANG) apprised of progress or status of restoration of utility services, including privatized utility services, resulting from outages or interruptions of service.

1.12.10. Ensure all utilities are disconnected, per AFCEC/CO guidance, for buildings that are to be placed into a Closed (CLSD) Operational Status.

### **1.13. The Installation Contracting Officer will: (Not applicable to ANG units)**

1.13.1. Negotiate utility services contracts (may not always include UP contracts) and serve as the installation's primary contracting authority for contact with the utility supplier.

1.13.2. Approve acquisition and modification of utility services contracts (may not always include UP contracts).

1.13.3. Request the Defense Contract Audit Agency audit the books of utility providers not subject to a regulatory body when assistance is needed to determine the cost of service.

1.13.4. Request, if needed, utility contract guidance from Air Force Installation Contracting Agency or the Secretary of the Air Force Acquisition Installations and Sourcing Division (SAF/AQCA). Alternatively, contact AF/JAOE-ULFSC through the installation legal office.

1.13.5. Ensure compliance with unique procedures of the Federal Acquisition Regulation (FAR) and its supplements pertaining to the acquisition of utility commodity services. For UP contracts, refer to [Chapter 7](#) of this DAFMAN.

1.13.6. Coordinate and collaborate with the UP administrative contracting officer and contracting officer's representative as necessary to minimize conflicts between installation contracts and UP contracts and eliminate utility system stranded assets.

### **1.14. The Contracting Officer's Representative will:**

1.14.1. Review and perform duties specified by DoDI 5000.72, *Department of Defense (DoD) Standard for Contracting Officer's Representative (COR) Certification*, and the contracting officer's representative letter of designation.

1.14.2. Maintain appropriate records to document deliverables submitted by UP system owner meet the technical and administrative requirements of the contract.

1.14.3. Submit timely UP system owner performance evaluation reports to the contracting officer.

1.14.4. Identify and document UP system owner performance problems and notify the contracting officer.

1.14.5. Reconcile and coordinate the privatized utility system owner's Annual Five-Year Plan and installation UP Annual Five-Year Plan with base stakeholders, the contracting officer, and AFCEC (NGB/A4O for ANG, and AFRC/A4CO for AFRC).

1.14.6. Coordinate on UP bills and invoices to ensure contracts are validated and processed for payment to avoid late fees.

1.14.7. Coordinate and corroborate with system owners to obtain inventory changes as they occur in privatized utility systems to maintain and update installation real property records in accordance with requirements of the installation Real Property Officer.

**1.15. The Installation Staff Judge Advocate will:** (Not applicable to ANG units. Also not applicable for UP contracts unless the installation manages the UP acquisition or the resulting UP contract.)

1.15.1. Act as the installation's primary legal advisor.

1.15.2. Review utility services solicitations, proposed contracts, and contract modifications to determine if they are legally sufficient.

1.15.3. Ensure utility services contracts comply with federal, state, and local laws, including ordinances, commission rulings, court decisions, and opinions of the Comptroller General.

1.15.4. Request, if needed, utility contract guidance from AF/JAOE-ULFSC.

1.15.5. Forward notifications of purchased utility rate changes to AF/JAOE-ULFSC.

**1.16. The Facility Manager (Building Manager for ANG) will:**

1.16.1. Assist utility operations managers to aid in compliance with energy policy directives, DAFIs, DAFMANs, safety guidance, and other guidance.

1.16.2. Coordinate on utility system work requests and projects that affect utility commodity consumption.

1.16.3. Apprise facility occupants of progress or status of restoration of utility services, including privatized utility services, by obtaining updates from the Civil Engineering Requirements and Optimization Element.

**1.17. The Mission Owner will:**

1.17.1. Identify utility support requirements to the BCE. The mission owner's input should include the availability and resilience requirements for utility services based on mission requirements.

1.17.2. Coordinate with the BCE to facilitate testing of utility systems supporting facilities required for mission assurance.

1.17.3. Pursue operational efficiencies in existing processes to enhance mission assurance while reducing consumption of purchased utilities.

1.17.4. Incorporate operational, energy, and utility efficiencies when developing new processes.

1.17.5. Review their mission profile within the initial installation energy plan and update information to their mission profile during the annual update.

1.17.6. Notify the BCE of changes to their mission profile that may require utility system changes prior to the annual update.

## Chapter 2

### PURCHASING UTILITIES

**2.1. Utility Acquisition Authority.** DoD may acquire utility services under 10 USC 3403 or under 40 USC 501, *Services for Executive Agencies*, as delegated by the General Services Administration. Utility Acquisition Method. Except for acquisitions below the simplified acquisition threshold, the BCE must obtain utility services by a bilateral contract and must include clauses required by Federal Acquisition Regulation (FAR) 41.501. (FAR 41.201(b)). **(T-0)**

2.1.1. Utility contracts may be either a General Services Administration area wide contract, a separate contract, or an interagency agreement. (FAR 41.202(b)).

2.1.2. Utility services are acquired using procedures and guidance set forth in FAR 41.202, including when the utility provider refuses to execute a tendered contract.

**2.2. Utility Bills and Payment.** The CE Squadron resource advisor or delegee must coordinate with respective contracting officers or contracting officers' representatives to ensure utility bills and installation-administered Utilities Privatization (UP) contracts are validated and processed for payment to avoid late fees. **(T-3)** For details on the utility bill payment process, see AFPAM 32-10144.

2.2.1. If the installation energy manager or delegee confirms the utility bill is correct, the CE Squadron resource advisor or delegee validates the utility bill for payment. **(T-3)** An e-mail is sufficient for this confirmation. Utility bills may be validated with the statement, "The services covered by this invoice have been received, and the amount of [insert dollar amount] is proper for payment. Errors in the invoice have/have not been identified, and the utility company has been notified of these errors."

2.2.2. Do not delay a utility payment due to billing errors. The CE Squadron resource advisor or delegee must confirm utility invoice billing elements and rates comply with the most current contract rate. **(T-3)** If any elements of the bill are incorrect, pay the amount that would be allowed if the elements were correct. Notify the utility company as soon as the discrepancy is discovered and follow up with the utility company until the issues are resolved.

2.2.3. The CE Squadron resource advisor or delegee must confirm utility invoices contain and factor in applicable discounts. **(T-3)**

2.2.4. The CE Squadron resource advisor or delegee must confirm demand charges resulting from power failures do not unfairly penalize the DAF. **(T-3)**

2.2.5. The CE Squadron resource advisor or delegee should periodically query the financial system (the electronic system in-place used for tracking payments) for unpaid invoices.

2.2.6. Where appropriate, the CE Squadron resource advisor or delegee should follow up with DAF and Defense Finance and Accounting Service personnel prior to bill due dates to help eliminate late fees.

2.2.7. There are several methods of metering and billing from a utility provider. The method most favored by the DAF is one master meter and one monthly bill per utility provider. This is not always possible when DAF facilities are geographically separated or when utilities have been privatized and meters are located at each facility. If a single DAF owned master meter

for that installation is available, a data sharing agreement with the utility provider for utility data at the billing cycle should be pursued (reference FY21 NDAA regarding whole installation data at the billing cycle <<https://www.congress.gov/bill/116th-congress/house-bill/6395/text>>). The preferred order of metering and billing for any utility services is as follows:

2.2.7.1. Master Metering/Billing - One master meter and a rate applied to that metered amount to create one monthly bill.

2.2.7.2. Conjunctive Billing - Multiple meters with a rate applied to the total of metered amounts to create one combined monthly bill.

2.2.7.3. Consolidated Billing - Multiple meters with rates applied to each individual metered amount to create one combined monthly bill.

2.2.7.4. Multiple Individual Bills – Multiple meters with rates applied to each individual metered amount to create a separate billing for each meter.

**2.3. Utility Purchase Contract Reviews.** The installation energy manager or delegee will perform annual utility purchase contract reviews or perform reviews whenever a contract is to be modified to ensure the DAF is acquiring utilities at the most economical rate available and costs are minimized. **(T-3)** Document these reviews (consistent with utility type) using AF Form 3550, *Annual Utility Contract Review for Electric Service*; AF Form 3551, *Annual Utility Contract Review for Gas Service*; and AF Form 3552, *Annual Utility Contract Review for Water and Sewage Service*. For details, see AFPAM 32-10144.

**2.4. Utility Services Folders.** The CE Squadron resource advisor, installation energy manager, or delegee must keep and maintain a utility services folder for each utility provider providing utilities to the installation. **(T-3)** The folder is a tool for managing purchased utilities. For a list of folder contents, see AFPAM 32-10144. This folder is not required at installations where another agency purchases the utilities for the DAF.



## Chapter 3

### PRODUCING AND MANAGING UTILITIES

**3.1. Ownership of On-Base Utility Systems.** On-base utility production and distribution systems are owned, operated, and maintained either by the government, a local municipality, a public or private utility provider, a privatized utility system owner, or a privatized housing project owner.

**3.2. Government Owned.** Government owned utility systems normally indicate the DAF is responsible for construction, operation, maintenance, and repair for the utility (commodity) production and distribution system from the installation fence or real estate boundary to the point of utility delivery to the customer. If the government does not produce the utility (commodity), the government purchases the utility from an off-base provider. Costs to provide utilities to the end user include the purchased utility commodity and the operations, maintenance, repair, and construction of the delivery system. Limit the off-base utility provider's ownership to that part of the system needed to connect the utility provider's service delivery to the installation. This delivery point is normally at or near the installation real estate boundary.

**3.3. Public or Private Utility Provider-Owned.** These utility systems are wholly owned and operated by the provider that also supplies the utility (commodity) in the local area. The point of utility delivery is directly to installation facilities consuming the utility. The government is not responsible for the maintenance or operations of any part of the distribution system including metering the consumption.

**3.4. Utility System is Owned by a System Owner.** If the on-base utility system has been privatized, it is wholly owned, operated, and maintained by a system owner. The privatized utility system may include production, distribution, collection, generation, and treatment facilities. The system owner may be a private company, a local governmental entity, or a local public utility company. UP contracts are utility services contracts under Federal Acquisition Regulation (FAR) Part 41, *Acquisition of Utility Services*, with a maximum term of 50 years (see 10 USC §2688, *Utility Systems: Conveyance Authority*).

3.4.1. If the system owner is not the local or current utility provider, the system owner charges are a separate charge in addition to the commodity or utility company billing.

3.4.2. If the system owner is also the local utility provider, then the UP costs may be included in the utility bill, depending on the structure of the utility contract.

3.4.3. Regardless of who owns the utility system, utility system performance data from the housing area must be reported monthly by the government entity selected or appointed by the BCE in accordance with details outlined in [Chapter 6](#) of this DAFMAN. (T-3)

**3.5. Utility System is Owned by the Privatized Housing Project Owner.** If the utility distribution or collection system associated with the housing area is owned by the privatized housing project owner, and DAF facilities other than housing are located within the housing area, utility services for these facilities are acquired according to the following options:

3.5.1. Distribution or Collection System in the Family Housing Area Owned by Local Utility. If the local utility company owns or provides utility services to or in the privatized housing

area, then the installation procures utility services from the local utility company for the DAF facilities within the privatized housing area.

3.5.2. Distribution or Collection System in the Housing Area Owned by the Privatized Housing Project Owner. If the project owner owns and operates the utility distribution or collection system to or in the privatized housing area, the government (installation) may provide utility services on a reimbursable basis to the project owner. If the government (installation) provides the utility commodity to the project owner; the CE Squadron resource advisor or delegee must confirm the project owner provides wheeling service without charge to any DAF facilities receiving service from the housing area utility distribution system, using government installed meters to measure the quantity delivered to the DAF facilities. **(T-3)** The CE Squadron resource advisor or delegee must confirm these meters are read monthly and the usage is deducted from the metered quantities delivered by the government (installation) to the project owner. **(T-3)** If the project owner owns and operates the water system in the privatized housing area, the project owner is responsible for permitting, sampling, and water quality, and resolution to any permit violations associated with safe drinking water consumption as required by all relevant codes and regulations. These instructions prevail unless otherwise stated in the applicable utility services agreement.

3.5.3. Regardless of who owns the utility system in the family housing area, utility system performance data from the housing area must be reported monthly by the government entity selected or appointed by the BCE in accordance with details outlined in [Chapter 6](#) of this DAFMAN. **(T-3)**

**3.6. Operations, Maintenance, and Repair Costs for Utility Systems.** The operation, repair, and maintenance costs associated with commodity production and utility distribution systems comes from work tasks, facility projects, maintenance service contracts, or other projects. Total costs for operations, maintenance, and repair of utility systems are determined by coordinating with the Civil Engineer Squadron Operations Flight (facility manager for ANG) for work tasks, facility projects, and maintenance service contract data, and the Civil Engineer Squadron Engineering Flight for project data. For details on government-owned utility systems and privatized utility systems, see AFPAM 32-10144 or the UP Playbook as appropriate.

**3.7. Project and Capital Investment Costs.** Major repair, large maintenance work, minor construction, and new construction costs associated with government owned production and distribution utility systems normally comes from projects. Costs for major maintenance and repair, minor construction, and new construction projects are determined by coordinating with the Civil Engineer Squadron Engineering Flight (BCE for ANG).

## Chapter 4

### PROVIDING UTILITY COMMODITIES

**4.1. Utility Services Agreements.** 10 USC §2686, *Utilities and Services: Sale; Expansion and Extension of Systems and Facilities*, authorizes the Secretary of the Air Force, or the designated representative, to sell utilities and related services to purchasers within or in the immediate vicinity of a DAF installation. 10 USC §2872a, *Utilities and Services*, authorizes the Secretary of the Air Force to furnish certain utilities and services on a reimbursable basis in connection with a housing privatization project located on a military installation. The CE Squadron resource advisor or delegee must credit proceeds collected for utility services sales to the appropriate account used for the utility or related service. **(T-2)** All utility services agreements must be in writing, signed by the purchaser and the installation commander (or his or her designee), and attached to a valid support agreement or lease (see [Table 4.1.](#), Reimbursable Customer Service Agreement Form Matrix, for appropriate forms and corresponding customer classifications). The installation energy manager or delegee must keep the original agreement and send copies to the purchaser, installation comptroller squadron, and the CE Squadron resource advisor or delegee. **(T-2)** To determine reimbursable status for housing privatization, the installation energy manager or delegee must apply the Sole Benefit Test specified by AFPAM 32-10144. **(T-2)**

**Table 4.1. Reimbursable Customer Service Agreement Form Matrix.**

	SERVICE AGREEMENTS (attach items to corresponding support agreements)				
	Medical & Housing	Non-Federal & Commercial	Federal & Non-DoD	DoD & Golf Course (except Housing & Medical)	MWR Cat C (except golf courses), AAFES, & PCS/TDY Lodging
No Agreement	Non-Privatized Housing & Medical				
AF Form 3553		<b>X</b>			
AF Form 3554			<b>X</b>	<b>X</b>	<b>X</b>
AF Form 3555	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
AF Form 4386	Privatized Housing				

4.1.1. The installation energy manager or delegee must use AF Form 3553, *Utility Sales Agreement for Non-Federal Organizations*, for non-federal organizations. (T-2) In addition to the BCE approval, the installation commander must also approve the AF Form 3553 for any sales occurring off the installation property. (T-2)

4.1.2. The installation energy manager or delegee must use AF Form 3554, *Utility Sales Agreement for DoD Agencies and Non-Federal Agencies*, for DoD and non-DoD federal agencies. (T-2) A purchaser with activities in several facilities, such as Morale, Welfare, and Recreation (MWR) should have only one AF Form 3554. When additional space is needed, add in [paragraph 5](#) of the form, "See attached memorandum which lists each activity, facility, and address to be served."

4.1.3. The installation energy manager or delegee must use AF Form 3555, *Utility Sales Rates, Exhibit \_\_\_\_*, attached as Exhibit A in AF Form 3554 service agreements and Exhibit B in AF Form 3553 sales agreements, for documenting resale or reimbursable utility rates. (T-2) The installation energy manager or delegee must update this form as often as necessary to reflect all-rate changes, and ensure this form is signed and approved by the BCE. (T-2) The purchaser does not sign this form. The installation energy manager or delegee must also update AF Form 3555 annually and include the most recent 12 months of actual costs to compute sales rates. (T-2) Annual updates are effective 1 January of each year. Updates incorporating changes to the installation's reimbursable rates are effective at the same time the installation's utility provider implements the new rates. The installation energy manager or delegee must use AF Form 3556, *Utility Sales Rates Computation Worksheet*, to compute utility rates. (T-2) The resource advisor, energy manager, or delegee must also update reimbursement rates immediately whenever a change in the purchase cost of a utility exceeds +/- 5%. (T-2) For more information on how to calculate utility reimbursement rates, see AFPAM 32-10144.

4.1.4. The installation energy manager or delegee must use AF Form 4386, *Utility Service Agreement for Privatized Family Housing*, to provide service to privatized housing project owners. (T-2) The installation commander approves the AF Form 4386 to provide service to privatized family housing projects. If an installation receives federal electrical power, the BCE must coordinate with AFCEC to avoid loss of the federal power allocation that may result from housing privatization. (T-2)

4.1.5. Rewriting of utility sales agreements should be kept to a minimum. Utility sales agreements are in effect until terminated by either party by providing 30 days advance written notification to the other party. When adding, deleting, or changing addresses for activities listed in AF Form 3553 and AF Form 3554, attach a memorandum signed by the BCE to the existing AF Form rather than creating a new sales agreement. It is not necessary to supersede, rewrite, or issue a new AF Form 3553 or AF Form 3554 when making minor changes or additions.

4.1.6. See DAFI 90-1701 for policy relating to net metering when a reimbursable utility recipient seeks to install a solar or other authorized renewable energy source and connect that source to the installation distribution system.

**4.2. Reimbursement.** DoD 7000.14-R, *Financial Management Regulation*, and DAFMAN 65-605, Volume 1, *Budget Guidance and Technical Procedures*, require utility reimbursement to ensure correct cost accounting.

4.2.1. The installation must not provide non-reimbursable support of any kind to other federal, state, territorial, tribal, or local government entities; private groups and organizations; individuals; foreign governments; and international organizations, unless required by statutes. **(T-0)**

4.2.2. The CE squadron resource advisor, installation energy manager, or delegee must examine all applicable utility usages for potential reimbursement, including applicable equipment (e.g., vending machines, batting cages, etc.) and facility usages. **(T-3)**

4.2.3. The CE Squadron resource advisor or delegee should correctly account for all applicable reimbursements. Where noted in reimbursement schedules, use of appropriated funds directly equates to Civil Engineer funding and any available appropriated funding.

**4.3. Restrictions.** For any utilities and related services sold to a non-federal organization on or in the immediate vicinity of a DAF installation, all of the following must apply:

4.3.1. The sale serves the interest of national defense or the public interest. **(T-2)**

4.3.2. The service is not available from local private or public providers (the person responsible for utilities management makes this determination annually; if there is a local source, the BCE discontinues service as soon as possible). **(T-2)** An exception to this requirement is that service to privatized housing can be provided even if available locally.

4.3.3. The sale is of excess service and/or commodity the installation currently has available and reasonably expects to have available over the term of the sales agreement. **(T-2)**

4.3.4. The sale does not disrupt present or planned service to the DAF. **(T-2)**

4.3.5. The sale does not result in attracting development of commercial activities that are not compatible with operation or performance of the installation's mission. **(T-2)**

4.3.6. The sale requires no more than a minor expansion or extension of DAF utility distribution systems or facilities. **(T-2)** Any such expansion must not hinder the construction of similar public or private facilities. **(T-2)**

4.3.7. The service is sold to the purchaser for their consumption, not for resale. **(T-2)**

**4.4. Utilities Without Reimbursement .** The BCE will provide utilities without reimbursement to:

4.4.1. Organizations so specified and identified in any DoD or DAF policy, directives, regulations, or instructions. **(T-2)**

4.4.2. Organizations operating in buildings, structures, and facilities located on DAF-owned or leased real property and funded with DAF-appropriated money. **(T-2)** See DAFMAN 65-605V1 for additional information.

4.4.3. Occupants in government quarters, family housing, transient billeting facilities, and unaccompanied personnel housing when occupying without charge or when the rental charge is a percentage of the basic allowance for housing (AFI 32-6000, *Housing Management*). **(T-2)**

4.4.4. MWR Category A and B activities, regardless of location. (T-2)

4.4.5. MWR Category C and Army & Air Force Exchange Service (AAFES) activities located outside the United States or in remote and isolated locations as listed in AFI 65-106, *Appropriated Fund Support of Morale, Welfare, and Recreation (MWR) and Other Non-appropriated Fund Instrumentalities (NAFIS)*. (T-2)

4.4.6. MWR Category C and AAFES activities occupying installations within the United States when appropriated Operations and Maintenance funding is available. (T-2) The installation commander coordinates with AFIMSC/IZB to determine if appropriated funding is available. Not authorized for golf courses or golf course structures other than golf clubhouses inside the United States, except those designated by the Secretary of Defense as a remote and isolated location. Not authorized for cart storage buildings, maintenance sheds, and pro shops inside the United States even if a part of golf clubhouse.

4.4.7. United Services Organization incorporated on-base activities (AFI 34-223, *Private Organizations [PO] Program*). (T-2)

4.4.8. Labor organizations authorized by the installation commander to use on-base facilities without cost (AFI 34-223 and DAFI 36-701, *Labor-Management Relations*). (T-2)

4.4.9. Other private organizations, described in AFI 34-223, when use of an on-base facility is occasional and only a minor part of the facility's use. (T-2)

4.4.10. Contractors (individual, firm, or corporation performing work on an installation), when their contract authorizes them government-furnished utilities without reimbursement. (T-2)

4.4.11. Thrift shops operated by wives or spouses clubs on DAF installations (DAFMAN 65-605V1). (T-2)

4.4.12. Air Force museums and Air Force heritage centers (AFI 84-103, *Department of the Air Force Heritage Program*). (T-2)

**4.5. Provided With Reimbursement.** The BCE will provide utilities with reimbursement to organizations required by any DoD or DAF policy, directives, regulations, or instructions to reimburse appropriated funds for utilities. (T-2) The DAF pays for the utility services using both direct and reimbursable customer funds. The BCE will execute and maintain on file, a written utility services agreement specifically addressing reimbursements (except for medical, housing, and other organizations that are members of the same wing as the BCE where a fund cite is adequate for reimbursement). (T-2) The customer will reimburse the DAF within 20 days after the DAF bills the customer, or as otherwise provided in the utility services agreement entered into with the customer. (T-2) Documents such as the installation telephone directory, real property records, leases, and support agreements can be used to identify new customers. Possible customers purchasing utility services from the DAF include:

4.5.1. DoD Agencies. The following are common DoD federal agencies that will reimburse the DAF for utilities:

4.5.1.1. Category C MWR and AAFES occupying installations within the United States. (T-2) These users should consider paying in advance for estimated utility consumption when appropriated funding is not available. Remote and isolated locations within the United States listed in AFI 65-106 are exempt from paying utilities. **Note:** Category C

MWR activities do not reimburse for sewage, refuse collection, and disposal service. AAFES activities are exempt from sewage but reimburse for refuse collection and disposal service. See AFI 65-106 for definitions and descriptions of MWR activity categories.

4.5.1.2. Temporary duty (TDY) and permanent change of station (PCS) Military Department lodging and associated support functions have been converted to fully non-appropriated fund (NAF) operations. These lodging operations will reimburse the BCE for all allowed utilities at the Customer Classification unit rate for MWR Cat C per AF Form 3556. **(T-0)** Reference DoD Directive-type Memorandum (DTM) 18-007, *Conversion of DoD Temporary Duty and Permanent Change of Station Lodging to Fully Non-Appropriated Fund Operations, Maintenance, and Construction*. See also AFPAM 32-10144 for further detailed guidance on exclusions and support requirements.

4.5.1.3. Medical units and organizations including Military Treatment Facilities. Defense Health Agency is the DoD authority for all DoD medical services including Military Treatment Facilities. The BCE must continue to provide Defense Health Agency facilities with all DoD support benefits of the former DoD Medical Services, including the DoD utility rate computations per AF Form 3556. **(T-2)** See AFPAM 32-10144 for detailed guidance on exclusions and support requirements.

4.5.1.4. Government-owned family housing. **(Note:** for utilities reimbursement purposes, apply the customer classification unit rate for MFH (Military Family Housing) and privatized housing per AF Form 3556).

4.5.1.5. Defense working capital fund activities described in DAFMAN 65-605V1. Defense Commissary Agency facilities used solely for retail sales must pay for utilities for all areas used to store, warehouse, and sell merchandise. **(T-2)** If a Defense Commissary Agency facility is used jointly for retail sales and other military or mission uses, do not charge for the consumption or use of utilities for military or mission essential areas.

4.5.1.6. ANG. **(T-2)**

4.5.1.7. Army National Guard. **(T-2)**

4.5.1.8. Department of the Army. **(T-2)**

4.5.1.9. Department of the Navy. **(T-2)**

4.5.1.10. Occupants of leased property according to 10 USC §2667, *Leases: Non-Excess Property of Military Departments and Defense Agencies*. **(T-2)**

4.5.2. Non-DoD Agencies. The following are common non-DoD agencies typically found on DAF installations that will reimburse the DAF for utilities:

4.5.2.1. United States Post Office. **(T-2)**

4.5.2.2. Federal Emergency Management Agency. **(T-2)**

4.5.2.3. Homeland Security. **(T-2)**

4.5.2.4. Drug Enforcement Agency. **(T-2)**

4.5.2.5. Department of Energy. **(T-2)**

4.5.3. Non-Federal, Commercial Organizations. Non-federal and commercial organizations not exempted by separate instructions and using facility space on other than an occasional basis must reimburse the DAF for utilities (Guidance is provided in AFI 34-223). Many private organizations are exempted from reimbursing utilities under separate instructions that are specific to the organization. Therefore, the CE Squadron resource advisor or delegee and the installation energy manager or delegee should research DAF in installation publications applicable to the organization before charging for utilities. The following are common non-federal customers reimbursing the DAF for utilities:

4.5.3.1. Public elementary and secondary schools.

4.5.3.2. Private schools.

4.5.3.3. Privatized housing project owners (AFI 32-6000). (**Note:** for utilities reimbursement purposes, apply the customer classification unit for MFH and privatized housing project owners per AF Form 3556).

4.5.3.4. Government civilian employees renting government quarters (AFI 32-9003, *Granting Temporary Use of Air Force Real Property*).

4.5.3.5. Credit unions and banks (AFI 32-9003) unless exempted in separate instructions.

4.5.3.6. Civil Air Patrol (DAFI 10-2701, *Organization and Function of the Civil Air Patrol*).

4.5.3.7. Any person or organization that connects equipment, devices, or appliances operated for private gain to the installation's utility system.

4.5.3.8. Contractors working on an installation and their contract.

**4.6. Selling Utilities to Non-Federal Customers.** SAF/IE or the installation commander may have already approved certain instances where the DAF has sold utility commodities, including electric, natural gas, sewer service, etc., to non-federal entities when those entities have been in close proximity to the DAF installation, were connected to the installation utility infrastructure, and met the restrictions set in [paragraph 4.3](#) of this DAFMAN.

4.6.1. When water is sold to non-federal customers, federal and state safe drinking water laws may affect the regulatory status of the installation. Coordinate with the installation bioenvironmental engineer, AF/JA Operations and International Law Directorate, Environmental Law and Litigation Division, Field Support Center (AF/JAOE-FSC), AF/JAOE-ULFSC, and the environmental manager to determine regulatory controls of selling safe drinking water.

4.6.2. Prior to engaging in the sale of water to a non-federal customer, the CE squadron resource advisor or delegee should contact AFCEC/CN and the local JA office for assistance in establishing rates and a sales agreement. Should it be necessary, further assistance may be obtained from AF/JAOE-ULFSC through the local JA office.

**4.7. Base Closure Locations.** AFCEC determines the utility rates for local redevelopment authorities at installations undergoing closure.

4.7.1. AFCEC establishes a sales utility rate that maximizes reimbursement to the DAF yet is economically feasible for local redevelopment. AFCEC will update the sales rate if there is a substantial change in conditions (such as increased reuse). (T-2)



4.7.2. The utility sales rate imposed by the BCE must not be less than the local prevailing rate for similar services. (T-2)

**4.8. Wheeling Charge.** A wheeling charge is applicable when an on-base tenant or privatized utility system owner purchases utility services directly from the local utility services provider. The CE Squadron resource advisor or delegee appointed by the BCE, will verify proper wheeling amounts are deducted on the monthly invoice and annually recalculate the wheeling charge. (T-3) The contracting officer will modify the utility services contract and update the wheeling charge annually when appropriate. (T-3) For more details on wheeling charges, see AFPAM 32-10144.

**4.9. Utility Invoices and Payment.** The installation energy manager or delegee, and the CE Squadron resource advisor or delegee will coordinate to process utility invoices for reimbursement. The CE squadron resource advisor or delegee will maintain a monthly spreadsheet showing the customer, consumption, and reimbursement rate no later than 10 days after the utility provider billing date. (T-3) The CE squadron resource advisor or delegee will prepare the invoices using NexGen IT. (T-3) Depending on the installation billing process, the CE Squadron resource advisor, delegee, or Defense Finance and Accounting Service mails the invoices to the reimbursable customer. (T-3) The CE squadron resource advisor or delegee invoices customers for utilities services, including late fees if applicable. (T-3)

**4.10. Billing Waivers.** The CE Squadron resource advisor or delegee may temporarily waive (suspend) billings for DAF, DoD, and federal customers when the accumulated charges against a reimbursable tenant do not exceed \$1,000.00 for any calendar quarter. However, no later than the end of the fiscal year, all suspended amounts must be billed even if the billed amount is less than \$1,000.00. (T-3) **Note:** The billing waiver does not apply for defense working capital fund or non-federal customers (DAFMAN 65-605V1, **paragraph 8.8.2**).

**4.11. Utility Reimbursable Rate Review.** The installation energy manager or delegee, or the CE squadron resource advisor or delegee will complete AF Form 3557, *Utility Service Annual Review*, no later than 1 January of each year to record the annual review and changes in utility agreements and rates for reimbursable customers. (T-3) (May not apply at ANG locations with no reimbursable customers.) Keep a copy of the latest annual review and a record of the action taken to resolve any problems or recommendations resulting from the annual review.

## Chapter 5

### MEASURING UTILITY COMMODITY CONSUMPTION

**5.1. Meters.** Measuring utility usage by installing meters (electric, natural gas, steam, chilled water, hot water, industrial wastewater, and potable water) where appropriate is a vital component of the DAF's facility energy program. This includes sub-metering inside of a facility and major Real Property Installed Equipment systems for critical missions to allow effective performance tracking and establishing baselines for energy efficiency. (Sub-metering below the building level and major Real Property Installed Equipment systems where required for critical mission monitoring as noted in the FY20 <<https://www.congress.gov/bill/116th-congress/senate-bill/1790>> and 21 NDAA <<https://www.congress.gov/bill/116th-congress/house-bill/6395/text>>.) All meters, meter communication systems, meter data collection systems, and any other meter enabling systems must comply with cybersecurity requirements.

5.1.1. The BCE or delegee must coordinate all advanced meter installation actions through the Advanced Meter Reading System (AMRS) Program Management Office prior to installation. **(T-3)** (Air National Guard units coordinate with the Civil Engineering Technical Service Center, NGB/A4OC.) Newly installed meters must meet cybersecurity and other applicable standards.

5.1.2. Utility purchase contracts specify provisions or details for meters which must be used for commodity sales and government refunds. The installation energy manager will keep a copy of the latest meter calibration test, where applicable, for each meter in the utility services folder. **(T-3)** Calibration for meters owned by the utility provider is the responsibility of the utility provider.

**5.2. Meter Installation.** Approved advanced meters with sampling intervals and remote reading capabilities communicating through the approved CE Control System network are mandatory on all new construction, reimbursable accounts greater than \$100K/year, and utility system renovation projects exceeding \$200K. **(T-1)** These meters must be connected to the AMRS where applicable. **(T-1)**

5.2.1. Installations must meter government-owned family housing using a master metering system according to DAFI 90-1701. **(T-1)**

5.2.2. Meter privatized housing areas. At a minimum, the project owner must install a master meter at the point of demarcation located between the installation utility system and the housing area utility system. **(T-2)** Project owners must coordinate meter equipment with the AMRS Program Management Office prior to acquisition. **(T-2)** If a project owner installs generation systems, an advanced meter must be installed. **(T-2)** These instructions prevail unless otherwise stated in the applicable utility services agreement.

5.2.3. The privatized housing area meters are purchased and installed using the project owner's funds, but the project owner will ensure meters meet Unified Facility Guide Specifications requirements and the BCE approves installation of the meter. The project owner will ensure meters are installed within 30 days after contract award for the privatized housing or as otherwise provided in the utility services agreement entered into with the customer.

5.2.4. The government will purchase and install meters on government-owned facilities located within privatized housing areas. **(T-3)**

5.2.5. Privatized housing with electrical generation, such as solar panels, that is owned or leased by the project owner must be metered using advanced meters. **(T-3)**

5.2.6. Critical facilities, Utility Management and Control Systems (UMCS), sub-systems, and key infrastructure nodes targeted for inclusion in a micro-grid must have approved advanced meters installed. **(T-0)** (see FY21 NDAA.)

5.2.7. Principle utility feeds for electrical power, natural gas, water, and steam, to an installation must have advanced meters installed, where cost effective, to capture whole installation utility consumption. **(T-0)** (see FY21 NDAA.)

**5.3. Meter Consumption Data and Reading.** Until advanced meters are fully operational and provide daily consumption data, the installation energy manager or delegee must collect meter consumption data monthly and, if possible, on the same day the local utility provider reads the installation master delivery point meter. **(T-2)** The installation energy manager or delegee must use facility meter data to determine reimbursable customer consumption for utility resale billing. **(T-2)** The installation energy manager or delegee must use onboard storage and computing capability in non-connected, but approved, advanced meters to validate utility quality and availability to meet mission owner utility quality requirements. **(T-2)**

5.3.1. Installation operations engineering will utilize advanced meter data to validate utility distribution health. **(T-2)** Data is to identify imbalances or performance lags allowing utility and building Sustainment Management System data to reflect the system shortfalls.

5.3.2. Installation energy managers or delegees will manage, analyze, and use metered consumption data as a tool to reduce energy and water consumption. **(T-2)** Installation energy managers, with assistance from AFIMSC or AFCEC (CETSC for ANG units), will identify and develop opportunities and initiatives into viable utility system-related projects. Installation commanders and BCEs will use consumptive data to establish baselines and benchmarks and promote energy awareness. **(T-2)** BCEs, AFCEC, and AFIMSC will use metered consumption data for performance compliance and energy analysis. **(T-2)**

5.3.3. Installations will ensure meter readings outside of AMRS include type of meter, meter identification number, meter location, multiplier and unit of measurement, prior and present month's reading and date, number of days between readings, consumption, and signature and phone number of the meter reader. Use the daily average consumption of any representative period in the event a meter fails.

5.3.4. Installations will keep meter data and billing information for the last 24 months available for easy access. **(T-2)** Store all meter information electronically for 7 years. **(T-2)** The installation energy manager will annually check the information to determine if consumption is nearing the utility system capacity. **(T-2)**

5.3.5. If actual consumption is nearing capacity, the Engineering Flight will coordinate with installation energy manager to analyze the infrastructure for possible capital improvements. **(T-2)** Regardless of capacity, energy conservation and management planning will be coordinated with community planning, asset management, and the engineering flight to determine future requirements. **(T-2)**

#### 5.4. Utility Meters and Civil Engineer Control Systems.

5.4.1. Utility Meters and UP. The UP contracting officer's representative must prevent non-government-owned AMRS utility meters from being connected to any government-owned local area network. **(T-2)** The UP contracting officer's representative must also prevent government owned AMRS meters from being owned by, or conveyed to, the system owner through UP. **(T-2)** In general the AMRS will remain DAF-owned specifically in areas where a microgrid service is possible. **(T-2)** DAF-owned Advanced Meters may be installed on privatized systems to ensure mission needs are met for utility reliability or microgrid operation; the UP contracting officer's representative must coordinate installation and connection of these meters with AFCEC/CIU and the AMRS PMO. **(T-2)**

5.4.2. Civil Engineer (CE) Control Systems and UP. When utility systems are being considered for UP, the BCE and UP project manager must include associated CE control systems, including Supervisory Control and Data Acquisition, in the evaluation for conveyance to a potential system owner. **(T-2)** The installation energy manager or delegee must address all DAF-owned and operated CE control systems and equipment being evaluated for UP conveyance, using the Risk Management Framework and, if connected to the DAF Enterprise, have an approved Authority to Operate. **(T-2)** The UP contracting officers representative must confirm all facility-related controls on privatized utility systems meet the cybersecurity requirements of the UP contract. **(T-2)** The installation energy manager or delegee must confirm all government-owned utility meters (electric, water, and gas) that are connected to a DAF Enterprise meet Unified Facilities Guide Specifications and be compatible with the DAF AMRS. **(T-1)** The installation energy manager or delegee determines which meters are mandatory.

5.4.3. Existing Utility Services Contracts. The requirements activity should notify and work with the contracting officer to modify and re-negotiate an existing UP contract that has conveyed required meters to a system owner to delete the meters from the system owner's inventory and return them to government ownership if cost effective.

5.4.4. Existing Utility Services Solicitations. When a utility system with required meters in the inventory is to be conveyed through UP, AFCEC (NGB/A4O for ANG) must provide the contracting officer with a revised section J in the request for proposals so the solicitation can be amended to delete conveyance of the meters. **(T-3)**

5.4.5. Utility services Contract in Transition. When a UP contract is in the transition phase, the BCE or designated representative confirms meters have been removed from the final inventory except those noted above, as soon as practicable. **(T-3)** This guidance is covered in greater detail in the UP Playbook.

5.4.6. CE Control System. The UP contracting officers representative must prevent any CE control system that is conveyed to a system owner from being connected to an installation-owned or government-owned local area network or a DAF Enterprise. **(T-2)** The installation energy manager or delegee must evaluate the CE control system for network security issues before conveyance to a system owner. **(T-2)**

**5.5. Utility Consumption Estimating.** In cases where meters are not available for measuring utility consumption, some method of estimating is required. Estimate present and future requirements (consumption) as realistically as possible. Consider temporary meters for estimating facilities that consume large quantities of energy and water. See AFPAM 32-10144 for details.

**5.6. Electricity and Natural Gas Estimating.** Use the energy use intensity information if available. If not available, consider using similar energy use intensities on similar facilities. Account for weather, occupancy, and scheduling effects. See AFPAM 32-10144 for details.

**5.7. Water and Wastewater Estimating.** If possible, use temporary meters to estimate water consumption; otherwise, use the best estimate possible based on the guidelines in the Federal Water Use Indices. See <<https://ctsedweb.ee.doe.gov/Annual/Report/Report.aspx>> or AFPAM 32-10144 for details.

## Chapter 6

### MEASURING UTILITY SYSTEM PERFORMANCE

**6.1. Utility System Performance Measurements.** Utility system performance measurements measure and document the performance of all DAF utility systems, regardless of whether a system is privatized or not. Utility system performance measurements are not to be confused with system owner (contractor) performance. The requirements in this Chapter measure system performance. System owner performance is typically measured and assessed by the contractor performance assessment reporting system or other tools as prescribed by procurement regulations and their supplements.

**6.2. Reliability Requirements.** Every critical mission owner on a DAF installation must identify utility reliability and quality requirements to the Base Civil Engineer. **(T-1)** Reliability requirements for electrical power must not exceed 99.9999% (6 9s). **(T-0)** (10 USC §2920) The BCE will determine where applicable metering, monitoring, redundant systems, backup systems and response criteria for real property is applicable. **(T-2)** Update the installation Mission Dependency Index and Contingency Response plans where applicable for these high utility reliability requirements. Mission Dependency Indices and Contingency Response Plans are maintained internally by the CE Squadron and are at a minimum Controlled Unclassified Information (CUI) if not classified. This information should be accessible to those in the Operations Flight and Engineering Flight to conduct regular operations, maintenance and repair and to plan and program future replacement projects to increase resiliency of those systems that require high utility reliability requirements.

**6.3. Reporting Requirements.** In addition to reporting requirements outlined in DAFI 90-1701, the BCE-designated government employee (typically, the installation energy manager or delegee) must document and report monthly, the data specified below in paragraphs **6.3.1 through 6.3.2** for electrical, natural gas, potable water, and wastewater utility systems on the installation using AFCEC's Utility System Operational Report Tracker (USORT) tool. **(T-1)** Utility system performance reporting is accessible at <https://usaf.dps.mil/sites/CE-DASH-Tools/USORT/Module/Home.aspx> The individual who reports the data to AFCEC in USORT must be a government employee. **(T-3)** The individual who reports the data to AFCEC in USORT must document and report system performance data regardless of whether individual utility systems are government-owned, privatized, or operated and maintained by a contractor. **(T-1)** Utility system performance data from geographically separated units must be included and reported with parent installation data unless otherwise approved by the AFCEC USORT manager. **(T-2)** Utility system performance data from housing areas may either be included with installation data or reported separately and concurrently with data from the installation. ANG units should follow the same reporting regimen used for reporting Annual Energy Performance and Resilience Report data, or as established by ANG guidance.

6.3.1. The installation energy manager or delegee must document and report all forced (unplanned) sustained utility system outages within 72 hours of the disruption. **(T-2)** A forced sustained utility outage is defined as the state of a utility system when it is not available to perform its intended function at one or more facilities for five minutes or longer, due to an unplanned event directly associated with that utility. A forced unplanned outage is an outage that could not have been deferred or rescheduled. An outage may be loss of service to one

facility (building) or loss of service to the whole installation; either one counts as a single outage event.

6.3.2. The installation energy manager or delegee must document and report the total time of outages accumulated during the month for each of the four utility systems. **(T-2)** This is the sum of outage time accrued during the number of outages reported for the month per [paragraph 6.3.1](#) above.

## Chapter 7

### UTILITIES PRIVATIZATION (UP)

**7.1. UP Authorities and Directives.** The secretary of each military department, or the secretary's designee, is granted the authority to convey (transfer ownership of) a utility system and to enter into a utility services contract with the new owner. The Defense Logistics Agency conducts the solicitation for system conveyance and award of a utility services contract. AFCEC/CI (NGB/A4O for ANG) is the DAF contract source selection authority. SAF/IEE is the approval authority for utility services contracts with terms in excess of 10 years (but may not exceed 50 years). SAF/IEE is also the DAF utility system Conveyance Authority.

7.1.1. AFCEC (NGB/A4O for ANG) serves as the execution agent for all UP activities and will advise and assist units or installations with scheduling utility systems for potential UP analyses and subsequent acquisition requirements. AFCEC (NGB/A4O for ANG) will schedule and execute UP analyses and acquisitions only at locations and installations approved by SAF/IEE and AF/A4C.

7.1.2. The DAF may declare a utility system exempt from privatization for unique mission or security reasons or when UP is determined to be uneconomical. SAF/IEE is the authority for exempting DAF utility systems from privatization. Refer to the UP Playbook for details.

7.1.3. AFCEC (NGB/A4O for ANG) will not privatize (transfer ownership of) a water system when doing so may result in relinquishing, transferring, forfeiting, or otherwise prejudicing DAF water rights and associated consumptive use permits unless agreed upon by the Government. AF/JAOE-FSC will determine any impacts to water rights. In cases where, in the opinion of AF/JAOE-FSC, water rights may be jeopardized, AFCEC (NGB/A4O for ANG) will submit the system to SAF/IEE for exemption from UP.

7.1.4. Industrial wastewater treatment plants on depot-level installations are not normally included in the privatization of a wastewater system. However, AFCEC may submit case-by-case exceptions to this policy to SAF/IEE.

7.1.5. DAF wastewater treatment plants hold a unique regulatory status under a provision of the Resource Conservation and Recovery Act known as the domestic sewage exclusion. See 40 Code of Federal Regulations (CFR) Section 261.4(a)(1), *Exclusions*. Privately owned wastewater treatment plants do not hold the domestic sewage exclusion, and therefore may have higher operating and environmental compliance costs. As a result, AFCEC will not privatize (transfer ownership of) a wastewater system containing a wastewater treatment plant, unless the UP project is structured in a way that preserves the domestic sewage exclusion, or there is a favorable business case for privatizing, notwithstanding loss of the domestic sewage exclusion. **(T-1)** If a proposal for a wastewater system may lead to loss of the domestic sewage exclusion, but still represents the best-value option for the DAF, AFCEC may present a business case analysis to SAF/IEE with a request to waive the requirement to retain the domestic sewage exclusion. The business case analysis must provide an analysis of the risks resulting from loss of the domestic sewage exclusion and demonstrate how acceptance of the proposal still represents the best value option for the long-term interests of the DAF. **(T-1)** SAF/IEE may approve or deny the request to waive the requirement to retain the domestic sewage exclusion.



7.1.6. System owners may not own any Advanced Meter Reading utility meters that are connected (wireless or hard-wired) to a DAF Enterprise or government network. In cases where the government and system owner need to meter the same location with AMRS utility meters, dual meters are an option.

**7.2. UP Goal and Purpose.** The goal of the DAF UP program is to permanently convey utility systems on active, Air Force Reserve, and ANG installations to private or public utility companies in conjunction with the award of a long-term utility services contract for the operation, maintenance, renewal, and replacement of those systems. The purpose of privatizing a utility system is to maximize reliability and increase resilience by restoring, upgrading, recapitalizing, and maintaining the infrastructure to industry standard condition.

**7.3. UP Procedures.** Utility systems authorized for privatization are defined in 10 USC §2688. The Office of the Secretary of Defense and the DAF focus mainly on electrical, natural gas, water, and wastewater systems; however, other utility systems are authorized for privatization, including steam, hot and chilled water, and telecommunications systems. Privatization of any utility system under 10 USC §2688 is the result of two decisions: (1) the decision to convey the utility infrastructure and (2) the decision to contract for utility services provided by the conveyed system.

7.3.1. Acquisition and Contracting Process for Utility Services. Unless SAF/IEE approves otherwise, the Defense Logistics Agency Energy performs all applicable contracting activities (pre-solicitation, solicitation, and source selection) with assistance from AFCEC (NGB/A4O for ANG), and source selection authority by AFCEC/CI.

7.3.2. Solicitations for privatization of utility systems must include whole systems (including all areas of Joint Bases) where possible. Systems may not be “partially privatized” or conveyed at lesser estate than full title transfer. Include in the conveyance all components that are part of the system such as grease traps (unless located inside a building), transformers, substations, lift stations, etc.

7.3.3. Defense Logistics Agency Energy is the contracting agent for DAF UP solicitations unless a waiver is approved by SAF/IEE. If UP solicitations are conducted by other contracting authorities (as approved by SAF/IEE), please see Air Force Federal Acquisition Regulation Supplement MP5315.3, *Source Selection*.

7.3.4. Transfer of a utility system to a private entity may result in unintended or unforeseen impacts on skills training for government civilian or military technicians. In some cases, privatization of a utility system may result in the reduction or loss of opportunities to train government employees in trade-skills required for deployment to forward operating locations. Additionally, if the system owner is unavailable for any reason during emergencies or contingencies, government employees must know how to operate, troubleshoot, and repair the system. Therefore, when analyzing any utility system for privatization and prior to issuing a UP solicitation, AFCEC (NGB/A4O for ANG) will coordinate with the BCE and the contracting officer to address potential training impacts and requirements for government employees. UP solicitations will not proceed until AFCEC (NGB/A4O for ANG) validates training requirements, if any, and such training requirements will be included in the resulting UP contract. Because UP is mainly limited to electrical, natural gas, water, and wastewater systems, attention to training issues should focus on two Air Force Specialties: Electrical Systems (3E0X1) and Water and Fuel Systems Maintenance (3E4X1). Reducing negative training impacts or providing training for emergencies may include but is not limited to any

combination of training mock-ups, other near-by installations, virtual-training programs, bringing instructors in from other locations, and including training requirements into UP contracts for system owners to provide training.

7.3.5. AFCEC (NGB/A4O for ANG) must perform an economic analysis as part of the business case analysis documenting the level of investment required to maintain adequate operation of the utility system over the proposed term of the contract. SAF/IEE is the decision authority for conveyance of DAF-owned utility systems to another owner. Using templates approved by Headquarters Air Force, AFCEC (NGB/A4O for ANG) prepares a conveyance decision analysis and a conveyance decision document and submits to SAF/IEE for approval. The completed conveyance decision document serves to record the decision for future reference when a bill of sale is submitted to SAF/IEE for signature. The conveyance decision process is more fully detailed in the UP Playbook.

7.3.6. Once the Source Selection Authority selects an offer, but before the contracting officer awards a contract, SAF/IEE uses the economic analysis and business case analysis to determine whether conveyance of the utility system(s) is in the best interest of the DAF. If the SAF/IEE decision is to convey and the UP contract term is for 10 years or less, the contracting officer may award the UP contract. If the decision is to convey and the UP contract is for more than 10 years but less than 50 years, SAF/IEE must submit the business case analysis to the Secretary of Defense for oversight review. Additionally, SAF/IEE must report any proposed privatization action to the Office of the Secretary of Defense, in which the long-term cost of the proposed UP contract is not at least ten percent less than the long-term cost of continued government ownership at the same level of effort.

7.3.7. A transition period occurs between the utility services contract award date and the contract start date. The contract start date marks the end of the transition period and is the date on which the UP contractor becomes the system owner. During the transition period, the BCE (or designee) and the future system owner compile and submit to AFCEC a joint inventory of the utility system. **(T-1)** The joint inventory is the source document for the bill of sale.

7.3.8. During the transition period, AFCEC (NGB/A4O for ANG) will oversee and facilitate timely execution of the bill of sale prior to the contract start-date, including system owner signature, coordination with Secretary of the Air Force, Office of the General Counsel, Installations, Energy & Environment Division, San Antonio Office (SAF/GCN-SA), AF/JAOE, and Headquarters U.S. Air Force, Facilities Division (AF/A4CF), and Conveyance Authority signature. The UP bill of sale is the legal document signifying the government has conveyed the utility inventory to a system owner.

7.3.9. The installation real property officer must update real property records no later than 60 days after the effective date of the applicable UP bill of sale or amended bill of sale. **(T-2)**

7.3.10. AFCEC (NGB/A4O for ANG) will coordinate with installations and contracting officers and conduct post-conveyance reviews of privatized systems. During post-conveyance reviews, AFCEC (NGB/A4O for ANG) will also:

7.3.10.1. Coordinate with the BCE's unit training manager to assess the effectiveness of any required government employee training provided by the system owner per the UP contract. Address any required additions or changes with the contracting officer and the

contracting officer's representative for possible modification of the UP contract. For specific or supplementary guidance, refer to the UP Playbook.

7.3.10.2. Assess and evaluate the UP contract expenditure data to determine whether cost avoidance or savings are tracking with those anticipated at the time of contract award.

7.3.10.3. Assess and evaluate the privatized system for compliance with standards and technical requirements established by the UP contract.

7.3.10.4. Assess and evaluate the existence of, and develop a conveyance plan for, any stranded assets associated with the privatized system. Stranded assets are utility infrastructure components that should be part of the privatized system but are still government-owned.

7.3.10.5. Assess and evaluate the resilience and reliability of privatized systems using the utility system performance measurements reported by the installation as required by **Chapter 6** of this DAFMAN.

7.3.11. Adding inventory to or altering the configuration of a privatized utility system may be required to support construction, modification, or demolition of new or existing facilities receiving utility services. Such activities associated with privatized utility systems are significantly different from government-owned utility systems. See DAFI 32-1020, *Planning and Programming Built Infrastructure Projects*, for guidance.

7.3.11.1. Only the utility system owner may add to, demolish, relocate, connect to, disconnect from, or in any way alter the privatized utility system. **(T-2)** Whenever the installation contemplates or plans any of these activities on a privatized system, the BCE, project planning and design activity, and project construction activity (including the construction contracting agent) must coordinate with the UP contracting officer, UP contracting officer's representative, AFCEC/CIUU, and the system owner (requirements and guidance are outlined in AFI 32-1020.)

7.3.11.2. Privatized utility services connections to or from new facilities (MILCON or other projects) must be acquired and performed by the system owner unless a waiver is obtained by AFCEC/CI. **(T-2)** See AFI 32-1020. When the system owner adds, installs, or constructs new infrastructure to connect a new facility or project to the utility system, the added infrastructure belongs to the system owner; no transfer of ownership is required. If the DAF, ANG, or a contractor other than the system owner adds infrastructure (e.g., new connections, microgrids, generation, etc.) to an already privatized utility system, the added infrastructure belongs to the DAF or ANG. An amended bill of sale is required to convey or transfer the newly added or additional utility infrastructure to the system owner. Similar to original bills of sale, AFCEC (NGB/A4O for ANG) must oversee, facilitate, and execute amended bills of sale. Coordination with SAF/GCN-SA, and AF/JAOE is still required but the AFCEC Installations Directorate (AFCEC/CI) (NGB/A4O for ANG), may sign amended bills of sale. As with original UP bills of sale, installation real property officers must update real property records no later than 60 days after the effective date of amended UP bills of sale. **(T-2)**

7.3.11.3. To facilitate updating and maintaining DAF real property records in accordance with established procedures, whenever system re-configuration or inventory changes occur, the UP contracting officer's representative must coordinate with privatized utility

system owners to fully inform and provide change data to the installation real property officer. (T-2)

#### 7.3.12. Environmental Studies to Support UP.

7.3.12.1. An environmental baseline survey is mandatory for areas that will be used exclusively by a privatized utility system owner, such as treatment plant or substation sites. An environmental baseline survey is not required for areas used by a system owner under a right of access. See AFI 32-7020, *Environmental Restoration Program*.

7.3.12.2. Complete the environmental impact analysis process using guidance in 32 CFR Part 989 – *Environmental Impact Analysis Process (EIAP)* on a proposed action to support UP. A categorical exclusion may or may not apply.

### 7.4. UP Funding and Programming.

7.4.1. Once a system is conveyed, all operation, maintenance, repair, upgrade, and improvement requirements are provided by the system owner via the UP contract (normally FAR Part 41). The cost of the contract is programmed and funded through the facility operations program element. See UP Playbook for details.

7.4.2. UP funding in support of military construction, minor construction, or repair projects. Connection fees, inspection fees and installation of new inventory on privatized utility systems is planned, programmed, designed, and executed using guidance provided in DAFI 32-1020. Military construction funds may be used for system upgrades, resilience improvements, or major projects that are outside of the normal maintenance and repair scope of the UP contract (see 10 USC §2914 (d)(1), *Military construction projects for energy resilience, energy security, and energy conservation*). Following completion of such projects, subsequent operations, maintenance, and recapitalization of the new inventory is programmed and funded annually by UP funds. For details on adding or deleting system inventory and making connections to privatized systems, refer to DAFI 32-1020 and the UP Playbook.

7.4.3. When a UP contract is commodity based, or the system owner generates, produces, or services the utility commodity, the installation energy manager or delegee must bill commodity charges to reimbursable customers separately from reimbursable amounts due for operation, maintenance, repairs, or replacement of the privatized utility distribution system. (T-3)

**7.5. UP in Privatized Housing Areas.** AFI 32-6000 should be followed in conjunction with this publication in all privatized housing areas because ownership situations and operational criteria vary from installation to installation. Refer to the UP Playbook for details. The authority to waive wing or unit level requirements in this publication, as identified with tier numbers, does not apply to any term, condition, or requirement in existing leases or agreements. The authority to waive housing privatization requirements or processes is established by SAF/IE directives. A waiver or modification of any term, condition, or requirement in a utility services agreement or other binding housing privatization agreement may be accomplished only by common agreement of the DAF and the project owner.

**7.6. Installation UP Annual Five-Year Utility Plan.** Most UP contracts require the system owner submit a plan every year that details and schedules completion of system deficiency corrections, upgrades, and renewals and replacements for a period of five years or as specified in the UP contract. The contracting officer's representative must review and coordinate new as well

as existing requirements yearly with the system owner, installation stakeholders, the contracting officer, and AFCEC (AFRC/A4CO for AFRC and NGB/A4O for ANG) to establish and finalize an installation UP Annual Five-Year Plan. **(T-2)** The coordination process helps maintain effective two-way communication between the installation and the system owner. The result is a well-coordinated yearly updated planning document for programming privatized system requirements for the future five-year period. (May not apply to ANG or Air Force Reserve installations.) See the UP Playbook for specific details for processing the installation UP Annual Five-Year Plan.

7.6.1. The contracting officer's representative must coordinate with the system owner in the planning stage of new installation projects with utility requirements. **(T-1)** Coordinated alterations, renewals, replacements, and upgrades on privatized utility systems must be included in the installation UP Annual Five-Year Plan to effectively support ever-changing mission needs and new requirements on the installation. **(T-1)**

7.6.2. The contracting officer's representative and the installation energy manager or delegee must coordinate with each other and all privatized utility system owners to resolve and eliminate any conflicts the installation UP Annual Five-Year Plan may have with the installation energy plan. **(T-2)**

7.6.3. The contracting officer's representative will forward the coordinated and finalized installation UP Annual Five-Year Plan to AFCEC (NGB/A4O for ANG, and AFRC/A4CO for AFRC) by 31 March, or other date as required by the UP contract. **(T-3)**

7.6.4. AFCEC (NGB/A4O for ANG, and AFRC/A4CO for AFRC) validates and approves new or additional requirements for privatized utility systems in accordance with Headquarters Air Force policy and guidance and finalizes installation UP Annual Five-Year Plans. **(T-2)** AFCEC (NGB/A4O for ANG, and AFRC/A4CO for AFRC) will use this plan, together with costs specified by the relevant UP contract, to develop, project, and program total UP funding requirements across the Future Years Defense Program. **(T-2)** The total funding requirement should include operations and maintenance, renewals and replacements, system deficiency corrections (including resilience, conservation, and security improvements), and system inventory changes (including connections and disconnections) or other costs not funded by military construction or facilities sustainment restoration and modernization.

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

10 USC §2667, *Leases: Non-Excess Property of Military Departments and Defense Agencies*

10 USC §2686, *Utilities and Services: Sale; Expansion and Extension of Systems and Facilities*

10 USC §2688, *Utility Systems: Conveyance Authority*

10 USC §2871, *Definitions*

10 USC §2872a, *Utilities and Services*

10 USC §2885, *Oversight and Accountability for Privatization Projects*

10 USC §2914 (d)(1), *Military construction projects for energy resilience, energy security, and energy conservation*

10 USC §2920, *Energy resilience and energy security measures on military installations*

40 USC §501, *Services for Executive Agencies*

FY20 NDAA, <<https://www.congress.gov/bill/116th-congress/senate-bill/1790>>

FY21 NDAA, <<https://www.congress.gov/bill/116th-congress/house-bill/6395/text>>

32 CFR Part 989, *Environmental Impact Analysis Process (EIAP)*

40 CFR Section 261.4(a)(1), *Exclusions*

Federal Acquisition Regulation, Part 41, *Acquisition of Utility Services*

DoDI 5000.72, Change 1, *DoD Standard for Contracting Officer's Representative (COR) Certification*, 26 March 2016

DoD Directive-type Memorandum (DTM) 18-007, *Conversion of DoD Temporary Duty and Permanent Change of Station Lodging to Fully Non-Appropriated Fund Operations, Maintenance, and Construction*, 21 November 2018, Change 3, 16 November 2022

DoD 7000.14-R, *Financial Management Regulation*, May 2021

Air Force Federal Acquisition Regulation Supplement MP5315.3, *Source Selection*

AFPD 32-10, *Installations and Facilities*, 20 July 2020

AFPD 90-17, *Energy and Water Management*, 21 May 2020

AFI 32-6000, *Housing Management*, 18 March 2020

AFI 32-7020, *Environmental Restoration Program*, 12 Mar 2020

AFI 32-9003, *Granting Temporary Use of Air Force Real Property*, 24 October 2018

AFI 33-322, *Records Management and Information Governance Program*, 23 March 2020

AFI 34-223, *Private Organization (PO) Program*, 13 December 2018

AFI 65-106, *Appropriated Fund Support for Morale, Welfare, and Recreation (MWR) and Other Non-appropriated Fund Instrumentalities (NAFIS)*, 15 January 2019

AFI 84-103, *Department of the Air Force Heritage Program*, 12 May 2021  
AFMAN 32-1062, *Electrical Systems, Power Plants and Generators*, 20 October 2020  
AFMAN 32-1067, *Water and Fuel Systems*, 4 August 2020  
AFPAM 32-10144, *Implementing Utilities at U.S. Air Force Installations*, 8 March 2016  
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DAFI 36-701, *Labor-Management Relations*, 14 November 2019  
DAFI 90-1701, *Installation Energy and Water Management*, 17 December 2020  
DAFMAN 65-605V1, *Budget Guidance and Technical Procedures*, 31 March 2021  
DAFMAN 90-161, *Publishing Processes and Procedures*, 15 April 2022  
Utilities Privatization Playbook, U.S. Air Force CE Portal,  
<https://usaf.dps.mil/teams/10041/CEPlaybooks/UtilitiesPrivatization/Pages/PlaybookProcesses.aspx?PrintOrder=1001>

### ***Prescribed Forms***

AF Form 3550, *Annual Utility Service Contract Review for Electric Service*  
AF Form 3551, *Annual Utility Service Contract Review for Gas Service*  
AF Form 3552, *Annual Utility Service Contract Review for Water and Sewage Service*  
AF Form 3553, *Utility Sales Agreement for Non-Federal Organizations*  
AF Form 3554, *Utility Sales Agreement for DoD Agencies and Non-Federal Agencies*  
AF Form 3555, *Utility Service Rates, Exhibit*  
AF Form 3556, *Utility Sales Rates Computation Worksheet*  
AF Form 3557, *Utility Service Annual Review*  
AF Form 4386, *Utility Sales Agreement for Privatized Family Housing*  
Department of the AF Form 847, *Recommendation for Change of Publication*

### ***Office Symbols***

**AF/A4**—Headquarters U.S. Air Force, Deputy Chief of Staff for Logistics, Engineering and Force Protection  
**AF/A4C**—Headquarters U.S. Air Force, Directorate of Civil Engineers  
**AF/A4CF**—Headquarters U.S. Air Force, Directorate of Civil Engineers, Facilities Division  
**AF/JA**—The Office of the Judge Advocate General  
**AF/JAOE**—AF/JA Operations and International Law Directorate, Environmental Law and Litigation Division

**AF/JAOE—FSC—AF/JA Operations and International Law Directorate, Environmental Law and Litigation Division, Field Support Center**

**AF/JAOE—ULFSC—AF/JA Operations and International Law Directorate, Environmental Law and Litigation Division, Utility Law Field Support Center**

**SAF/AQCA—Secretary of the Air Force Acquisition Installations and Sourcing Division**

**SAF/GC—Secretary of the Air Force, General Counsel**

**SAF/GCN-SA—Secretary of the Air Force, Office of the General Counsel, Installations, Energy & Environment Division, San Antonio Office**

**SAF/IE—Assistant Secretary of the Air Force for Energy, Installations, and Environment**

**SF/COO—Headquarters U. S. Space Force Chief of Operations for Operations**

**SF/S4O—Space Staff Mission Sustainment Division**

### ***Abbreviations and Acronyms***

**AAFES—Army & Air Force Exchange Service**

**AEPRR—Annual Energy Performance and Resilience Report (formerly the Annual Energy Management and Resilience Report, AEMRR)**

**AF—Air Force**

**AFCEC—Air Force Civil Engineer Center**

**AFI—Air Force Instruction**

**AFIMSC—Air Force Installation and Mission Support Center**

**AFMAN—Air Force Manual**

**AFR—Air Force Reserve**

**AFPD—Air Force Policy Directive**

**AMRS—Advanced Meter Reading System**

**ANG—Air National Guard**

**BCE—Base Civil Engineer**

**BOS—Base Operating Support**

**CETSC—Civil Engineering Technical Service Center for ANG**

**DAF—Department of the Air Force**

**DAFI—Department of the Air Force Instruction**

**DAFMAN—Department of the Air Force Manual**

**DoD—Department of Defense**

**FAR—Federal Acquisition Regulation**

**MFH—Military Family Housing**



**MWR**—Morale, Welfare, and Recreation

**NDAA**—National Defense Authorization Act

**NexGen IT**—Next Generation Information Technology

**NGB**—National Guard Bureau

**§**—Section (the symbol used to refer to a particular section of a legal code)

**UP**—Utilities Privatization

**USC**—United States Code

**USORT**—Utility System Operational Report Tracker

**USSF**—United States Space Force

### *Terms*

**Administrative Contracting Officer**—The contracting officer assigned contract management and administration responsibilities for previously awarded contracts.

**Air Force Real Property**—Air Force real property is any right, title, or interest in land, buildings, fixed improvements, utilities, and other permanent additions to land. Examples include equipment attached to, and made part of, buildings and structures (such as heating systems), but not movable equipment (such as plant equipment).

**Approval Authority**—Senior leader responsible for contributing to and implementing policies, guidance, or procedures pertaining to his or her functional area (e.g., heads of functional two-letter offices).

**Asset Management**—Use of systematic and integrated processes to manage natural and built assets and their associated performance, risk, and expenditures over their life cycles to support missions and organizational goals.

**Bill of Sale**—The document used to convey or transfer all of the government's right, title and interest in all or part of a utility system at an installation. After it is signed by the Conveyance Authority and the system Owner, the effective date of the Bill of Sale is the date of the conveyance. (See Conveyance)

**Commodity or Utility Commodity**—The consumable part of a utility service as opposed to transporting or delivering the utility. The commodity is a measurable quantity of the utility in gallons, cubic feet, kilowatt-hours, or British Thermal Units.

**Contracting Officer's Representative**—A government person or persons (military or civilian) trained, certified, and appointed by the contracting officer to monitor the day-to-day activities of government contracts or serve as a technical representative.

**Conveyance**—The legal transfer of all of the government's right, title and interest in all or part of a utility system to the system owner. (See Bill of Sale)

**Conveyance Decision Analysis**—The process and analytical tools used by the Conveyance Authority to determine if it is in the best interest of the DAF to transfer the utility system to the offeror selected by the Source Selection Authority.

**Conveyance Authority**—The Secretary of the Air Force or designee granted authority under 10 USC §2688 to convey utility systems under the jurisdiction of the Secretary.

**Conveyance Decision**—A decision to transfer ownership of property (such as a utility system) from the DAF to a private entity.

**Conveyance Decision Document**—Written instrument signed by the Conveyance Authority that documents the conveyance decision. (See Conveyance Decision Analysis)

**Cost of Service**—Cost-of-service pricing is the setting of a price for a service based on the costs incurred in providing it. Cost of service pricing can be applied to an individual customer based on the costs of serving that customer (usually this is done only with large-scale customers or customers who are costly to serve), or as an average cost of service for a group of similar customers (also called a customer class or category).

**Data Center**—A closet, room, floor, or building for the storage, management, and dissemination of data and information, which contains computer systems and associated components, such as databases, applications, storage systems, and data stores.

**Defense Finance and Accounting Service**—Accounting agency for DoD and is also responsible for the payment of all DoD contracts.

**Defense Working Capital Fund**—A DoD revolving fund that finances the buying and selling of goods and services. It also provides cost visibility and accountability to facilitate business operations.

**Distribution System**—The combination of components, physical hardware, procedures, and processes required to deliver the utility commodity (electrical power, water, natural gas, or wastewater treatment) to end-user customers.

**Effective Date**—The date indicated in the bill of sale when transfer of ownership of government property becomes legally binding.

**Energy Management**—The process of developing, executing, and overseeing plans, programs, and initiatives to achieve energy and water goals and objectives across all functional areas.

**Environmental Baseline Survey**—Current environmental condition of facility or location being assessed before assigning or transferring real property responsibility.

**Environmental Impact Analysis Process**—a process to determine the environmental effects of a proposed action.

**Facility Energy**—Energy consumed in any building, structure, or other property (including any applicable fixtures) owned or operated by, or constructed or manufactured and leased to, the Federal Government where most energy use is devoted to the heating, cooling, lighting, ventilation, or to service the water heating energy load requirements of the facility.

**Family Housing**—On-base and off-base government-owned, -leased and -controlled residential dwellings provided for eligible military and civilian members and their families.

**Field Command**—A major subdivision of the DAF that is assigned a major part of the US Space Force mission. Field commands report directly to the Chief of Space Operations.

**Force Protection**—Preventive measures taken to mitigate hostile actions against Department of Defense personnel (to include family members), resources, facilities, and critical information.

**Geographically Separated Unit**—Any unit separated from its servicing military personnel flight beyond a reasonable commuting distance. For ANG units, the term GSU is used synonymous with Independent Unit.

**Government Should-Cost Estimate**—The cost of government ownership at a funding level equivalent to what the government “should” be spending for the proper sustainment and restoration of a utility system based on industry standards rather than what is actually being spent.

**Headquarters Air Force**—The HAF is comprised of the Secretariat, Air Staff, and Space Staff offices.

**Housing Area**—An identifiable grouping of family housing facilities planned, developed, and maintained in a residential character.

**Housing Privatization**—Conversion of government housing to privatized housing through the authorities in 10 USC §2871, *Definitions*, and §2885, *Oversight and Accountability for Privatization Projects*, as amended.

**Installation Commander**—The host unit commander who discharges the duties directed by United States statutes or DAF directives.

**Installation Energy**—The energy used to power all facilities located on military installations and enduring locations, as well as fuel for the non-tactical fleet vehicles used at those locations and the energy consumed in manufacturing, maintenance, and other processes.

**Installation Energy Manager**—The person designated by the BCE as outlined in AFI 90-1701, to oversee, implement, support, and promote awareness of installation energy programs, goals, metrics, and initiatives.

**Joint Staff**—The staff under the Chairman of the Joint Chiefs of Staff that assists the Chairman and the other members of the Joint Chiefs of Staff in carrying out their responsibilities.

**Judge Advocate**—e—An officer of the Judge Advocate General’s Corps of the Army, Air Force, or Navy, or officers of the Marine Corps or Coast Guard designated as a judge advocate.

**Labor Organization**—An organization composed (in whole or in part) of employees, in which employees participate and pay dues, and which has as a purpose of dealing with an agency concerning grievances and conditions of employment.

**Major Command**—A major subdivision of the US Air Force that is assigned a major part of the DAF mission. Major commands report directly to the Chief of Staff of the Air Force.

**Master Metering**—A method of metering the use of a utility in which multiple buildings or customers are all metered cumulatively on the same meter. For example, a condominium on master metering would receive one utility bill for all condo owners measured through that meter.

**Military Department**—One of the departments within the Department of Defense created by the National Security Act of 1947, which are the Department of the Army, the Department of the Navy, and the Department of the Air Force.

**Mission Assurance**—A full life-cycle engineering process to identify and mitigate design, production, test, and field support deficiencies threatening mission success.

**Mission Owner**—The organization, office, or point of contact responsible for the activities and outcomes supported by the installation infrastructure or facility. Mission owner representatives with detailed knowledge of facility requirements may be located at other installations.

**NexGen IT**—The Base Civil Engineer information technology system.

**Operations and Maintenance**—Routine mechanical and structural management, service, repair, recapitalization, and investment required to keep spaces, structures, facilities, and infrastructure (including utilities) in proper operating condition and prevent failure and degradation.

**Privatization**—Divestiture and legal transfer of ownership of government-owned property (including real property and utility infrastructure to a non-federal entity).

**Procuring Contracting Officer**—A contracting officer who initiates and signs the contract.

**Program Element**—The primary data entity in the Future Year Defense Program; each program element has a specific allocation of resources from the Secretary of Defense.

**Project Owner**—Non-government, private industry owner and operator of privatized family housing units.

**Real Property**—Lands, buildings, structures, utilities systems, improvements, and appurtenances, thereto that includes equipment attached to and made part of buildings and structures, but not movable equipment.

**Reimbursable Utilities**—Utility services for which the installation pays the bill upfront and then the tenant repays the installation for the services.

**Reimbursement Schedules**—Schedules that identify the anticipated customer orders to be received, by accounts receivable sales code. These schedules show the anticipated reimbursements included in the funds provided in budget authorizations.

**Renewals and Replacements**—Investments in a utility system to refurbish, overhaul or replace system components that fail or have reached the end of their useful life.

**Resource Manager or Resource Advisor**—An individual who verifies and validates the funds cited on a commitment or obligation document are accurate and available (DoD FMR Glossary).

**Risk Management Framework**—A federal government guideline, standard and process for risk management to help secure information systems developed by the National Institute of Standards and Technology.

**Section J**—The section in a UP request for proposal, and resulting contract, that contains a list of attachments, exhibits, and reference documents that may include specifications, unique requirements, functional descriptions, and other technical information or data pertaining to an installation utility system.

**Simplified Acquisition Threshold**—The dollar amount below which a non-federal entity may purchase property or services using small purchase methods.

**Sole Benefit Test**—The test used to determine whether the DAF will charge a project owner or customer for any operations, maintenance or repair costs associated with system infrastructure owned by the DAF. Under the Sole Benefit Test, if system infrastructure owned by the DAF is solely benefiting a project owner or customer, the DAF charges the project owner or customer for

the operations, maintenance and repair costs for that portion of the system infrastructure. For further information on this process, please see AFPAM 32-10144.

**Source Document**—The letter, order, form, list, and so on, that records data or information that can be referred to at a later time.

**Source Selection**—Formal process employed in procurement of goods and services, consisting of a request for proposal, evaluation of the responses received, short-listing of the most suitable sources, and award of contract or order.

**Source Selection Authority**—The individual designated to make the best-value decision to privatize an DAF utility system.

**Staff Judge Advocate**—Installation official with delegated authority to manage and provide legal support.

**Stranded Asset(s)**—Government-owned infrastructure that may be readily identified as assemblies, components, or subcomponents of an otherwise privatized utility system.

**Support Agreement**—A written agreement that establishes the roles and responsibilities for recurring support between the requiring activity and the performing agency. Support agreements may be intra-agency (between DoD and other federal agencies) or interagency (between DoD and non-DoD federal agencies). May also may be referred to as a Memorandum of Understanding or Memorandum of Agreement.

**Sustainment Restoration and Modernization**—Facilities Sustainment, Restoration and Modernization is a program that provides funds to keep facilities in good working order, restore outdated components and inventory, repair damage caused by fire, accident, or natural disasters, implement new or higher standards, or accommodate new functions or missions.

**System Deficiency Corrections**—Those projects and associated costs identified by the installation and or proposed by the system owner that are determined to be necessary to bring a utility system up to the standards typically maintained by industry, or to ensure compliance with applicable law or ensure life, health, safety protection.

**System Owner**—An entity that acquires ownership of a utility system from the DAF and has a contract with the DAF or U.S. Government to operate, maintain, and recapitalize that same utility system.

**Utilities**—Electrical power, natural gas, potable water, wastewater, steam, chilled water, hot water, and industrial wastewater provided to customers, including the commodity and associated infrastructure that generates, supplies, distributes, collects, or treats the commodities.

**Utilities Privatization**—Divestiture of utility system infrastructure by (1) conveyance of government-owned utility systems (primarily electric, gas, water, or wastewater, but the statute permits wastewater ) to a non-federal entity through the definitions and authorities of 10 USC §2688, as amended, along with a long-term contract to own, operate, maintain, and recapitalize that utility system or (2) the abandonment in-place of government-owned utility systems, with replacement and ownership added to an existing General Services Administration area-wide commodity contract with a non-federal entity (typically the local provider).

**Utilities Privatization Annual Five-Year Plan**—A comprehensive name for a plan outlining the recapitalization, system deficiency correction, upgrades, connections, and renewals and

replacements over the period beginning two years from the year in which the plan is prepared. Most UP utility services contracts require the system owner to submit the plan annually. Each plan must contain a proposed list of work efforts that the system owner intends to accomplish for each of the seven years following plan submission.

**Utility System**—Infrastructure, sub-systems, components, equipment, fixtures, and structures used for generation, supply, distribution, collection, or treatment of prime electrical power, natural gas, potable water, wastewater, steam, chilled water, hot water, and industrial wastewater.

**Wheeling**—When a utility distribution company delivers, or wheels, energy from the transmission system to an end-use customer, it is referred to as retail wheeling. When a customer who also generates energy produces energy at one site, transports it across someone else's facilities and consumes it at another site, it is referred to as self-service wheeling.

**Wheeling Charge**—The cost of wheeling or transporting electrical energy from the generating company to an end-user customer.