

2020 ENERGY ACTION MONTH RESOURCE GUIDE

U.S. ARMY RESERVE ENERGY & WATER PROGRAM

SUSTAINMENT AND RESILIENCY DIVISION ARMY RESERVE INSTALLATION MANAGEMENT DIRECTORATE

@SustainableUSAR www.usar.army.mil/Sustainability

WHY ENERGY RESLIENCE MATTERS



Energy Action Month is a national awareness campaign designed to educate Soldiers, Civilian employees, and our communities about energy resiliency, security, efficiency, and affordability; enhance their understanding of Army energy initiatives; encourage their participation in these efforts; and share our energy success stories with our peers and the general public.

Energy Action Month occurs every October. All Army Commands are encouraged to participate and host activities and events at their respective sites. As a land-holding Command, the United States Army Reserve (USAR) participates in Energy Action Month and encourages all USAR-funded Installations, Readiness Divisions (RDs), Mission Support Commands, and Army Reserve Centers to do so as well.

This year's Energy Action Month theme is "Energy Resilience Gives Us The Power To Win." Why is energy resilience important? From the electricity that powers our facilities to the fuel that powers our vehicles, energy touches nearly every aspect of the USAR's mission. With over 200,000 Soldiers and Civilian employees operating within nearly 43 million square feet of building space spread across the nation, the USAR is a major power consumer. Energy access is essential for our resilience, meaning, if our energy supply is disrupted, we still have the power needed to mobilize, deploy, and win.

There are many threats to our energy security. The 2018 National Defense Strategy states, "It is undeniable that the homeland is no longer a sanctuary." As our assets face threats of physical attacks and cyberattacks from our adversaries, and the devastating impacts of natural disasters, we must all take action to reduce energy and water consumption to protect our supply chains. This helps ensure USAR Soldiers have the energy and water they need, when they need it and where they need it—even in the face of disruption.

Furthermore, Army Directive 2020-03, Installation Energy and Water Resilience Policy, tasks all landholding commands to ensure a minimum of 14 days energy and water resilience during outages to sustain critical missions.

If we each take steps to implement simple yet effective changes, we not only reduce usage but reduce costs that enable the USAR to move dollars towards other operational needs. Conserving power helps protect America's energy future.

USAR ENERGY & WATER PROGRAM

The USAR Energy & Water Program focuses on mitigating risks posed by energy and water interruptions. Our priority is to ensure available, reliable, and quality power and water to continuously sustain critical missions. Our water and energy initiatives are united in effort—enabling the USAR to execute a holistic energy and water security-focused strategy that enhances readiness and resilience while improving the operational capability of Soldiers.

Energy and Water Resilience Strategy

Updated in 2020 through the Army's Integrated Strategic and Sustainability Planning process, the USAR Energy and Water Resilience Strategy focuses on governance and collaboration, knowledge management and workforce, and infrastructure modernization.

Governance and Collaboration

From engaging senior leadership to integrating operational staff, the USAR Energy & Water Program drives policy and resources towards state-of-the-art resiliency initiatives. We must protect mission readiness, and through stakeholder engagement, we can continue to drive understanding and support for energy and water solutions for our critical facilities. As we continue to lead the effort to coordinate and collaborate between the installation and operational staff on critical mission resilience, we will always look beyond our team to ensure solutions are sustainable, flexible, and meet the needs of mission owners.

Knowledge Management and Workforce

We must properly staff our installation management workforce and provide them with dynamic data repositories and reliable information platforms. Empowering our workforce with continuous learning opportunities while leveraging a wider aperture of data will shape the USAR's success. We currently do this through hosting the USAR Mission Resilience and Sustainability training and participation in the Department of Energy's Energy Exchange annual conference, and we will continue to pursue opportunities internally and externally to develop our team.

Infrastructure Modernization

We must target our investments so USAR facilities are sustainable, enable multi-domain operations, and protect the homeland. Modern, efficient, and affordable infrastructure must withstand, respond to, and recover rapidly from disruptions. Army Directive 2020-03 (Installation Energy and Water Resilience Policy) tasks all landholding commands to ensure a minimum of 14 days energy and water resilience during outages to sustain critical missions. Through Installation Energy and Water Plans (IEWPs) and Energy Resilience Readiness Exercises, the USAR evaluates our resilience posture and prioritizes projects to address vulnerabilities.

2019 Achievements

The USAR prides itself in our successful energy and water achievements across our Installations and facilities. In FY19, USAR energy achievements include:

- 11.6% decrease in energy use intensity (EUI) compared to the FY15 baseline.
- 0.8% decrease in EUI compared to FY18.
- Six of 10 combined RDs/ USAR-funded Installations decrease EUI (with four of those showing a double digit decrease).
- Energy consumption decreased 13% compared to FY18.
- Installing 13 gigawatt hours worth of renewable energy at USAR locations, which is enough to power 1,776 American homes for one year.
- 42 new buildings added to the Enterprise Building Control System (EBCS), completing an upgrade of the enterprise server, migrating all 37 phase one buildings to the new server, and issuing a performance work statement to conduct site readiness assessment for EBCS integration for 260 additional buildings.

In FY19, USAR water achievements include:

- Decrease in potable water use intensity (WUI) by 28% compared to FY18 and 46% compared to the FY15 baseline.
- Use of geospatial data analysis and monthly water utility data to evaluate sites that experience higher water rates, fall within vulnerable watersheds, and have the potential for alternative water sources.
- Additional rainwater harvesting systems installed at Fort Buchanan, Puerto Rico, helping to ensure water can be provided during times of utility disruption.
- Comprehensive Energy, Water, and Waste Evaluations identified potential water savings totaling17,720 kgal annually, which equates to the amount of water used by approximately 160 American households per year.

2019 Awards:

- Department of Energy, Federal Energy Management Program Award, presented to Maria (Angie) Lopez at Fort Buchanan.
- Secretary of the Army Energy and Water Management Award Program, presented to Fort Hunter Liggett.
- Texas Water Development Board Rain Catcher Award, presented to Grand Prairie Armed Forces Reserve Complex, 63rd RD.
- Fox McCarthy Georgia Water Wise Award from the Georgia Association of Water Professionals, presented to the Harry Milton Kandel Army Reserve Center, 81st RD.

IEWPs

Headquarters Department of Army guidance has prioritized completing IEWPs for all USAR-funded Installations and RDs by FY22. IEWPs are crucial for identifying and implementing energy and water security projects at critical facilities to help ensure mission success during times of disruption. Numerous USAR sites are in the planning process or are near plan completion.

EVENTS AND INITIATIVES

Planning an Energy Action Month event or awareness campaign but not sure where to start?

Here are some ideas:

- Display advertisements on digital marquee signs at entrance gates and/or other available locations.
- Conduct virtual Building Energy Monitor training.
- Observe the energy use in your facilities (day and night), and report any incidents of waste or opportunities for conservation to your facility manager, Building Energy Monitor or the USAR Energy & Water Program team. Encourage others to do the same!
- Host a virtual tour of your renewable energy sites.
- Ask your Senior Leader to create a public service announcement for Energy Action Month. Coordinate the effort with your Public Affairs Office and Senior Leader's office, and distribute the video across media outlets.
- Ask your followers on social media to share their most innovative energy conservation ideas with the hashtag #PowerToWin and #EAM2020.
- Partner with your Public Affairs Office so they can compose articles about your energy programs, energy savings tips, testimonials, etc.
- Host an energy conservation competition between Army Reserve Centers. Ideas include comparing month-to-month energy consumption at participating Reserve Centers, encouraging building occupants to document their energy conservation efforts and share photos and videos, or virtually visiting other Reserve Centers for a "show and tell" of energy conservation efforts.
- Install energy conservation displays in high-traffic areas with educational information and promotional items.
- Partner with your local utility providers, other sustainability agencies, and other Department of the Army agencies (such as your Morale, Welfare, Recreation

entities; Army and Air Force Exchange Service; and Defense Commissary Agency) to host an energy conservation campaign that targets your entire community.

 Partner with Installation schools to host a virtual energy conservation event by conducting science experiments to demonstrate energy concepts.

Energy Action Month initiatives should provide awareness around energy resilience. This can be done through:

- Sharing the Army and Army Reserve Energy Action Month Messages with your community.
- Utilizing Energy Action Month top line messaging and talk points (see page 5).
- Demonstrating energy saving products such as light emitting diode (LED) or compact fluorescent light (CFL) bulbs; electrical outlet insulators and light switch insulators; furnace filter alarms; programmable thermostats; 'smart' power strips; watt meters; timers; and occupancy sensors.
- Sharing pictures, videos, and trainings on social media. Be sure to tag the Sustainment and Resiliency Division (@sustainableusar) and the USAR (@usarmyreserve). Use the suggested hashtags found on page 6.

Participation to the fullest capacity possible is expected with consideration of the current COVID-19 environment. Please follow local restrictions and protocols to ensure a safe Energy Action Month campaign.







TOP LINE USAR MESSAGING AND TALK POINTS



Summary

October is National Energy Action Month, a time to raise awareness about energy resilience, efficiency, water conservation, and to drive behavior change. "Energy Resilience Gives us the Power To Win" is the Army's theme for 2020. The theme reflects the critical importance of installation, operational energy, and water resilience to Army readiness.

Top Line Messaging:

- This year's Energy Action Month theme is "Energy Resilience Gives Us The Power To Win."
- Critical USAR sites must have unfettered access to energy and water for mission readiness and to be a globally responsive Reserve Force.
- Uninterrupted access to energy and water is essential for readiness and ensures that the USAR can mobilize and deploy.

Resilience: Ensure energy for critical missions under all conditions.

- Reliable access to energy is critical to mission success
- The USAR must have the required energy to complete critical missions.
- Energy resilience is vital to mission readiness. It advances the capability of systems, USARfunded Installations, and personnel, and helps units respond to unforeseen energy

disruptions while quickly recovering critical missions.

- Commands must prioritize energy resilience requirements to ensure reliable energy and sustainment of critical missions.
- Installation and operational energy resilience enables USAR readiness.
- The USAR must conserve, protect, and prioritize energy supplies and supply chains.

Efficiency: Optimize energy use to meet requirements effectively and sustainably.

- USAR energy and water infrastructure must be adapted for efficiency to reduce usage, maintain effectiveness, and support future capabilities.
- Measuring performance is vital to evaluating USAR efficiency efforts.
- USAR facility and infrastructure energy and water demands will be reduced through design and equipment requirements that achieve efficiency without compromising the mission.
- The USAR must look for innovative ways to reduce energy and water consumption.
- Installation Energy and Water Plans (IEWP) address vulnerabilities and must be updated regularly.
- The USAR is planning to conduct more Energy Resilience Readiness Exercises (ERRE) to evaluate Installations' energy

posture and prioritize missioncritical projects. ERREs exercises are vital to identifying energy resilience capability gaps.

Affordability: Manage energy costs to enable the USAR to refocus investment.

- Energy and water infrastructure requirements must be affordable to prioritize resources for significant mission enabling capabilities.
- Leaders and managers should reduce utility procurement costs through conservation, project initiatives, and improved acquisition strategies.
- Installations must make energy and water choices that save taxpayer dollars while maintaining critical operations in case of an unexpected grid outage.
- To optimize USAR energy and water expenditures, investments must consider both upfront and life cycle costs.
- The USAR uses third-party financing and privatization in addition to appropriated funds to achieve energy resilience.

SOCIAL MEDIA POSTS AND TIPS



USAR Energy & Water Program

- #DYK since 2012, the Army Reserve has produced enough renewable energy to power 7,000 American homes for one year? We're committed to equipping our facilities with reliable quality power to sustain critical missions and mitigate risks posed by interruptions.
- In FY19 the Army Reserve achieved an 11.62% decrease in energy use intensity compared to the FY15 baseline. We're committed to implementing smart conservation measures to decrease energy use intensity across our Army Reserve Centers, Readiness Divisions and USAR-funded Installations.
- The Army Reserve Energy & Water Program partners with Readiness Divisions and USAR-funded Installations to identify and implement energy and water security projects at critical facilities to help ensure mission success during times of disruption. Energy Resilience Gives Us The Power To Win.
- Through Installation Energy and Water Plans and Energy Resilience Readiness Exercises, the USAR evaluates our resilience posture and prioritizes projects to address vulnerabilities. Energy Resilience Gives Us The Power To Win!
- #DYK the Army Reserve actively pursues modern solutions like microgrids with battery storage, renewable energy, and innovative waste to energy systems that



transform everyday garbage into usable electricity? We're commited to providing our Soldiers efficient and resilient facilities that bolster our ability to maintain critical missions.

 Along with energy, the Army Reserve prioritizes water resilience and conservation. Our potable water use intensity has decreased by 46% compared to a FY13 baseline.

At Work

- Be Twice the Citizen. Save energy in your Army Reserve Center. Save energy at home.
- Energy touches nearly every aspect of the Army Reserve's mission. Ensure our energy future, and conserve power.
- The Army Reserve Energy & Water Program advances our mission, protects our communities, and empowers our Soldiers to charge ahead. Do your part. Conserve energy.
- Energy resilience helps ensure our Soldiers have the energy they need, when and where they need it, to accomplish their missions—at home and down range, now and in the future.
- From the electricity that powers our facilities to the fuels that power our vehicles, energy touches nearly every aspect of the Army Reserve mission. Energy access is essential for the Army Reserve's resilience, meaning, if our energy supply is disrupted, we still have the power needed to perform critical operations.



- If you see energy waste in your Army Reserve facility, say something! Report incidents of waste and opportunities for energy conservation to your Facility Manager or Building Energy Monitor.
- Create a more energy efficient office. Use natural light wherever possible, and use the 'energy saver' modes on copiers and printers.
- If it's not in use, turn off the juice. Power down lights, electronics, and appliances when they are not in use to conserve our resources, reduce our operating costs, and enhance our energy security.
- Big change begins with small actions. Create a culture of energy and water conservation by implementing simple practices that help preserve our supply chains.

At Home

- October is Energy Action Month. It is everyone's responsibility to take action and make energy-informed decisions. Energy Resilience Gives Us The Power To Win!
- The power is in your hands. When you purchase electronics and appliances, choose ENERGY STAR[®] certified models.
- During warmer months, reduce the use of lights, appliances, and electronics that can generate heat like ovens, computers, dishwashers, curling irons, and hair dryers, even televisions! Don't forget to unplug "vampire electronics" that continue to use energy such as phone chargers,

SOCIAL MEDIA POSTS AND TIPS

coffee pots, and cable boxes.

- It's the 21st century and our homes have the capability of being incredibly smart! Take advantage of all technology has to offer: web-based remote applications, LED lightbulbs, smart meters, energy efficient appliances, and electronics, and purchasing green power to name a few! Audit your home's energy and find ways you can make smarter energy choices.
- Use cold water! Washing your clothes in cold water reduces energy use by up to 80% compared to a warm wash load. Hot water uses 39% of energy in the average home.
- When you're conserving energy, go with the flow. Change your heating and air conditioning system's filters regularly. Ensure your vents are not obstructed, and close doors and windows to heated or air conditioned areas.
- Dirty air filters make your HVAC system work harder and use more energy. So if it looks dirty, swap it for a new one and at a minimum, change your air filter every three months.
- To increase air circulation and efficiency, regularly clean your dryer lint filter to eliminate build up. Consider switching to dryer balls instead of softener sheets. Turn the heat setting to low to use less energy.
- Did you know 35-40% of home energy use is spent on heating and cooling? Set your thermostat at 68 degrees in the fall/winter and 78 degrees in the spring/summer to conserve energy.
- Programmable thermostats make it easy to manage the temperature of your home. While away, set your thermostat close to the temperature outside to reduce your energy bill. Use ceiling fans to increase comfort and turn them off when you leave the room.
- Fall has arrived and winter is around the corner. Weatherizing your home to eliminate air leaks and adding insulation not only makes for a comfortable home,

but a more efficient one, too! For tips, visit energystar.gov and search Weatherize.

- We have bright ideas for energy conservation. Replace your incandescent light bulbs with energy efficient compact fluorescent lights (CFLs) or light emitting diodes (LEDs).
- Looking to reduce your energy bill? Hire an energy professional or conduct a DIY <u>Home Energy</u> <u>Audit</u>. You might be surprised on the ways you can improve efficiency and create a more comfortable and affordable home.
- Did you know at least 50% of customers in most states have the option to purchase renewable electricity directly from their power supplier? Research your market and do your part to increase the development of renewable energy resources.
- Sprucing up your landscaping not only increases curb appeal, but it can also reduce your heating and cooling bills. Plant trees on the south side of your house so your roof can be shaded in the summer and feel the sun's warmth in the winter. You can also shade the ground around your house with low maintenance plants to help cool the air before it reaches your structure.
- Slow down! As your speed increases, so does the amount of fuel you're using. Driving at 70mph uses up to 9% more fuel than at 60mph. Cruising at 80mph can use up to 25% more fuel than at 70mph.
- Our Soldiers cannot train without water, and our facilities cannot function without it. Pollution can threaten our potable water supply. Do your part to protect and conserve water by reducing the use of chemicals and by consuming and discarding your wastes carefully and properly.

Suggested Hashtags

- #EAM2020
- #PowerToWin
- #MissionCapable
- #Adapt2Win
- #KnowYourMil

Suggested Tags

- @USArmyReserve
- @SustainableUSAR (Army Reserve Sustainment and Resiliency Division)
- @ArmyOEI (Army Office of Energy Initiatives)
- @ENERGY (United States Department of Energy)

Download Social Media Banners and Other Collateral

- To download 2020 USAR Energy Action Month digital media and poster files, please <u>click here</u>.
- Please access the <u>Office of the</u> <u>Chief Public Affairs portal</u> (using your authentication certificate) for Army Office of Energy Initiatives products.

RESOURCES AND CONTACT INFORMATION

ONLINE RESOURCES

Army Office of Energy Initiatives

- www.asaie.army.mil/Public/ES/oei/ index.html
- www.facebook.com/ArmyOEI/
- @ArmyOEI
- Energy videos: U.S. Army Energy YouTube Channel

Energy Information Administration

- <u>www.eia.gov/</u>
- www.facebook.com/eiagov/
- @ElAgov

Energy Saver

- www.energy.gov/energysaver/energy-saver
- www.facebook.com/energysaver

Environmental Protection Agency

- <u>www.epa.gov/energy</u>
- www.facebook.com/EPA/
- @EPA

United States Department of Energy

- <u>www.energy.gov/</u>
- <u>www.facebook.com/energygov/</u>
- @ENERGY

Army and Air Force Exchange Services (AAFES)

www.shopmyexchange.com

Defense Commissary Agency (DeCA) www.commissaries.com

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