WATTS HOT Newsletter®

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YOUR SOURCE FOR ENERGY, TECHNOLOGY, SUSTAINABILITY & RESILIENCY

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Editor's Message: Inflation Reduction Act Opportunities for Public and Private Housing

We have covered the Inflation Reduction Act (IRA) in various ways in this and past WattsHotNewsletter® editions; however, the enormous opportunities for PHAs and Multifamily owners are worth another look.



The real estate industry drives 40 percent of the world's carbon dioxide emissions. In the U.S., homes, including multifamily properties, are responsible for 20 percent of the country's greenhouse gases. Undertaking low-risk retrofits to electrify homes will contribute significantly toward the country's goal of net zero emissions by 2050.

One of the most significant steps to fight climate change is providing vast opportunities for multifamily property owners and managers. The President's signature on the Inflation Reduction Act (IRA), provides a sweeping package that includes \$369 billion to reduce <u>U.S. greenhouse gas emissions by 40 percent by 2030</u>.

Much of the funding and regulations will move our country's energy production to more environmentally friendly sources, including ramping up domestic production of wind turbines, solar panels, and batteries, as well as providing tax credits to reduce carbon emissions.

For multifamily property owners, the bill offers a large chunk of funding and incentives for building upgrades—with \$9 billion for consumer home energy rebate programs and 10 years of tax credits for clean and energy-efficient home improvements. As an example, HUD's Green and Resilient Retrofit Program (GRRP) provides funding for direct loans and grants to fund projects that improve energy or water efficiency, enhance indoor air quality or sustainability, implement the use of zero-emission electricity generation, low-emission building materials or processes, energy storage, or building electrification strategies, or address climate resilience, of eligible HUD-assisted multifamily properties.

UPCOMING EVENTS

- PHADA 2024 Commissioners' Conference January 7-10, 2024 San Diego, CA
- NLIHC Policy Forum March 19-21, 2024 Washington, DC
- NAHRO 2024
 Washington Conference
 April 8-10, 2024
 Washington, DC
- PHADA 2024 Annual Convention and Exhibition June 2-5, 2024 New Orleans, LA
- PHADA 2024 Legislative Forum September 8-10, 2024 Washington, DC
- NAHRO 2024 National Conference & Exhibition September 26-28, 2024 Orlando, FL

Property owners will also benefit from workforce training programs for the jobs required to implement retrofits and a widened domestic supply chain. A significant legislative effort, the IRA includes a dizzying number of funding opportunities for public and multifamily property owners to sort through.

HUD recently announced the Funding Navigator to PHAs and Multifamily owners among others to billions of dollars in Federal funding and tax credits to improve carbon reduction and climate resilience. Discussed later in the newsletter, the easy-to-use interactive tool allows the user to browse and sort funding opportunities for billions of dollars in funding available under the Inflation Reduction Act (IRA), Bipartisan Infrastructure Law (BIL). The Funding Navigator helps HUD program participants maximize the utilization of IRA and BIL resources for carbon reduction and climate resilience efforts. A summary of key IRA funding opportunities to leverage for your portfolio are below:

Energy-efficiency Rebates

Multifamily property owners who want to retrofit their existing properties can access \$4.3 billion via rebates for energy-efficiency purchases. Individual states will implement programming to help single-family and multifamily property owners electrify water heaters, HVAC systems and clothes dryers; purchase heat pumps; and upgrade service panels, windows, and insulation. Owners can also receive an additional 30 percent credit for implementing solar power and geothermal heating over the next 10 years.

Extra Funding for Affordable Housing

The package aims to pursue environmental justice, designating \$837.5 million for owners who invest in low-income communities. Funding is available for upgrades in affordable housing units, including energy storage, electrification, improved air quality, energy efficiency and water conservation. Often owners can access the loans or grants for affordable housing updates in addition to the other energy-efficiency tax credits and rebates offered through the IRA.

Workforce Training and Supply Chain Improvements

Despite increased enthusiasm for environmentally friendly upgrades, the shortage of skilled labor can result in costly delays. Compounding staffing challenges, persistent supply chain clogs might make owners wary about undertaking retrofits, even with the incentives offered by the IRA.

To address these issues, legislators included several initiatives that will make green projects easier to complete:

- The IRA includes \$30 billion in tax credits and the Enhanced Use of the Defense Production
 Act to accelerate domestic manufacturing of solar panels, wind turbines, batteries and heat pumps, all aimed at getting more U.S.-made content out to consumers quickly.
- Additionally, the Home Online Performance-Based Energy-Efficiency (HOPE) program will receive \$200 million to provide home performance training to contractors' employees, ensuring a pipeline of trained professionals. One policy estimates that the funding will eventually support 83,000 jobs.

Sustainability Is Good for Business

In recent years, environmental, social and governance (ESG) has become a must-have for real-estate portfolios. Customers and investors want sustainable assets, and tenants prefer living in energy-efficient units to reduce their utility costs. Owners who invest in climate-friendly buildings see higher rents and NOI. Barron's 10 most sustainable Real Estate Investment Trusts had an average dividend yield nearly 1 percent higher than their peers in the S&P 500.

With the IRA providing tax credits, rebates, grants, and loans, as well as making investments in production and labor, there's never been a better time to make deep retrofits to multifamily properties.

Understanding the complexities of the IRA and energy conservation can be challenging. Outsourcing to an expert in multifamily sustainability practices can deliver the results you want without bogging down your organization. When picking a sustainability expert, look for those with experience, proven reporting competencies and green financing knowledge. With the introduction of the IRA, multifamily property owners have a tremendous opportunity to improve their communities and reduce their carbon footprint while enjoying higher rents and lower operating expenses.

Recognition and appreciation are given to Richard LaMondin, Retrofit, for topics discussed in this article.

WattsHot Energy Briefs



- San Diego is the "greenest," or most environmentally sustainable, city in the United States, according to a report released Wednesday by personal finance company WalletHub. Following the California city are Honolulu; Portland, Oregon; Washington, D.C.; and Seattle as the five greenest U.S. cities. The report looks at how the Nation's 100 most-populous cities compare across 28 key "green" indicators, including per-capita greenhouse gas emissions, green space, walking and biking scores, and whether the city has banned disposable plastic bags.
- New Infrastructure Act Funding Release: DOE Allocates \$3.5B toward Grid Resilience,
 <u>Microgrids Nationwide</u> Selected projects mixed in the latest funding round include work by Georgia
 electric cooperatives, Louisiana community resilience hubs, microgrids in Michigan, distributed energy
 projects in Pennsylvania and in Oregon with utility and Tribal partners.
- Colorado has adopted building performance standards requiring owners of large commercial, multifamily, and public buildings to track annual energy use and emissions and make improvements as needed to comply with 2026 and 2030 greenhouse gas reduction targets. Colorado could see an estimated \$6.4 billion in economic benefits from the new standards between 2024 and 2050.
- Members of the U.S. Climate Alliance, a bipartisan coalition of 25 governors, **announced** commitments to help decarbonize buildings, including an agreement to collectively reach 20 million heat pump installations by 2030. Several states in the group made new pledges to explore the adoption of building performance standards, explore the development of clean heat standards, and take actions to align buildings-sector utility resource planning and procurement policies with state climate goals.
- The Department of Energy (DOE) **announced** guidance for states and territories to apply for the two Home Energy Rebate programs created by the Inflation Reduction Act. The programs will provide \$8.5 billion to states and territories to reduce energy costs and increase efficiency in homes by making home energy upgrades more affordable. DOE has asked states and territories to prioritize households that stand to benefit the most from the funds, including allocating at least half of the funds to households with incomes at or below 80% of their area median income.
- Recently <u>proposed</u> DOE efficiency standards for residential water heaters would deliver some of the
 most significant energy bill savings and greenhouse gas reductions of any appliance standard to date.
 The biggest single impact of the standards would be from shifting most new electric tank models to heat
 pump technology.
- First Lady Dr. Jill Biden met with Tribal officials from the Menominee Indian Tribe of Wisconsin on Tuesday, October 10, to learn how Federal investments are making a difference in Tribal community in central Wisconsin. She was joined on her visit by United States Secretary of the Interior Deb Haaland (Pueblo of Laguna) and Assistant Secretary of Interior Bryan Newland (Bay Mills Indian Community). Menomonee Chairwoman Gena Kakkak said in a press release she was thrilled to learn of the visit. "We are very honored to have the First Lady visit our homeland and to also welcome Secretary Haaland and Assistant Secretary Bryan Newland in a once-in-a-lifetime event for our Nation," Kakkak said. "We appreciate the Biden Administration for all their support in our many initiatives and look forward to building strong partnerships with each of them." In a speech, Jill Biden touted the commitment the President has made to Native American Tribes and noted that his administration has made the largest Federal investment in Indian Country in U.S history. "That's why Joe's made the largest-ever Federal investment in Indian Country," Biden said on Monday in a speech at the College of Menomonee Nation. "He is honoring the Nation-to-Nation relationship making sure all parts of his administration are consulting with Tribes. And he is begun an unprecedented collaboration with Tribal Nations to manage the lands, waters, and natural wonders that are important to you because you know best what you need."

Recognition and contribution from the American Council for Energy Efficient Economy (ACEEE) to Hot Briefs.

Unintended Consequences of Building Decarbonization

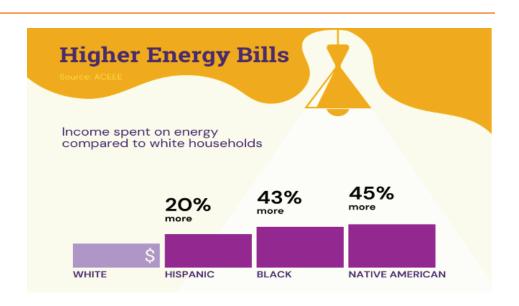
The urgent need to combat climate change has accelerated efforts to electrify and decarbonize buildings, heralding a promising shift towards sustainable energy sources. It is crucial to acknowledge the potential unintended consequences of such endeavors, particularly for frontline communities and Black, Indigenous, People of Color (BIPOC).



Historically marginalized and disproportionately affected by environmental disparities, these communities may face unique challenges in adopting clean energy solutions and accessing the benefits of the green transition. Addressing these concerns requires a holistic approach that includes financial support, equitable community engagement, affordable housing protections, green workforce development, health impact assessments, and cultural sensitivity. As the Institute for Marketing Transformation (IMT) has collaborated with community-based organizations and local governments, the following harms are frequently mentioned. When governments, utilities, and the real estate industry pursue decarbonization, they must address the unique issues within their community, which may go beyond this list.

Potential Harm Caused by Building Decarbonization Energy Cost Burden

Frontline communities and BIPOC households often have lower incomes and may already struggle with high energy costs. Electrification and decarbonization efforts could potentially lead to an initial increase in electricity costs as the transition occurs, putting a disproportionate financial burden on these communities.



Displacement and Gentrification

This affordability concern may hinder their ability to access clean energy technologies, exacerbating existing energy poverty. As urban areas undergo electrification and decarbonization, there is a risk of displacement and gentrification. As the value of properties increase due to electrification efforts, it can lead to rising property taxes and rent, making it difficult for long-standing community members to afford to live in their neighborhoods. This gentrification can result in the forced relocation of vulnerable populations to areas with fewer resources and limited access to essential services.

Lack of Access to Benefits

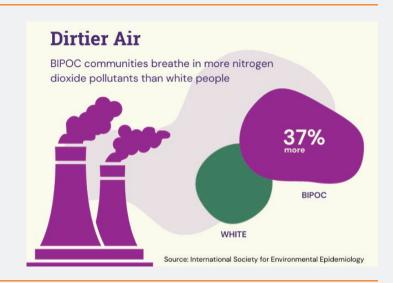
Frontline communities and BIPOC individuals might not have equitable access to the benefits of electrification and decarbonization. For example, they may not have the financial means or administrative capacity to invest in clean energy technologies, access energy efficiency incentives, or participate in community solar programs. In the case of the Inflation Reduction Act (IRA), many of the tax deductions and rebates for big-ticket items like electric stoves and heat pumps are more accessible to homeowners. Renters may have to rely on landlords for upgrades that transition the building from fossil fuels. This disparity could further deepen existing social and economic inequalities.

Employment Disparities

Jobs created in the clean energy sector during electrification may not be equally accessible to frontline communities and BIPOC individuals. Barriers such as educational requirements and discriminatory hiring practices could limit their access to new green jobs, perpetuating employment disparities.

Health Impacts

While electrification and decarbonization aim to improve overall air quality, certain communities may face temporary disruptions during the transition. Construction activities and retrofitting of buildings can release pollutants and particulate matter, impacting air quality and potentially causing health issues for those living in close proximity to these activities.



Tribal Sovereignty Limitations

Tribal Nations are often not included in electrification and decarbonization efforts such as codes and regulation adoption, utility development, and financial incentives for building stock electrification. Not adding language to specifically include Tribes, and not including Tribes in the program/policy/regulation drafting and adoption processes both limits the ability for Tribal Nations to be proactive in furthering their own decarbonization goals and reactive to the policies set by the State/Federal government.

Recognition and appreciation are given to Giulianna Di Lauro for her significant contribution to this article. Ms. Lauro is IMT's Associate Director of Community Engagement. In her role, she serves as a primary representative to community organizations and city staff ensuring that inclusive community engagement solutions are centered on equity and accessibility.

WattsHot Market Street



These are unprecedented times!

Because of the recent Inflation Reduction Act (IRA) changes to the U.S. Tax Code (179D and Investment Tax Credits), there are significant monies available for PHAs from HUD, DOE, EPA and the Tax Code that can support energy-saving facility upgrades and decarbonization projects.



With decades of experience and over \$500 million of successful energy projects on our resume our Team has significant resources to provide both large and small PHAs with turnkey services to help identify, prioritize and navigate the IRA opportunities to unlock revenues for your PHA!

Our Services



Strategic Action Plans

We match resources with your current and future portfolio needs to identify optimal projects and revenue outcomes.



Application Insights + pre/post support

We provide insights and support to successfully navigate and complete applications to the various IRA programs after assessing your specific agency's needs.



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We are fully engaged with you through out the process from on-boarding to evaluation, application and award stages.

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Michael Nail, CEO

Enlightened is a Service Related Disabled Veteran Small Business

The Future is Now -Artificial Intelligence in Housing

Artificial intelligence (AI) may still sound futuristic, but it is all around us. From the controversial testing of self-driving cars to Google's AI algorithms that constantly self-evaluate and improve search results, we interact with artificial intelligence every day.



As artificial intelligence (AI) continues to advance and reshape various industries, its impact on the multifamily sector is becoming increasingly apparent. From enhancing property management to predicting market trends, AI is revolutionizing the way multifamily professionals operate. Here are five ways artificial intelligence could transform your portfolio in the coming years:

1. Maintenance

Imagine never having to call maintenance out during the night again. Artificial intelligence can read environmental cues to suggest preventive maintenance and predict equipment failures. This means you will not have to keep excess parts on hand to fix problems quickly or inconvenience tenants while waiting for parts to be delivered. Using AI to analyze data from internet of things (IoT) sensors and historical maintenance records, property managers can predict when equipment, such as HVAC systems or elevators, may require maintenance or replacement. This initiative-taking approach can lead to significant cost savings by preventing costly emergency repairs and extending the life of expensive equipment.

2. Energy Efficiency

AI can optimize energy consumption in multifamily properties by analyzing data from smart thermostats, lighting systems, and other IoT devices. By adjusting temperature and lighting based on occupancy and time of day, AI-powered energy management systems can significantly reduce energy costs and contribute to a more sustainable living environment for tenants. This translates into savings for the property owner as well. If communal areas are powered down while unoccupied, for example, this leads to a direct expense reduction at no cost to the resident experience.

3. Property Management Functions

AI-powered property management platforms can streamline daily tasks and improve efficiency. By automating routine tasks like rent collection, maintenance requests, recertification, and lease renewals, AI frees up time for property managers to focus on more strategic activities, such as building relationships with tenants and growing their portfolios. AI can help forward thinking PHAs and multifamily owners make informed decisions when selecting new residents. AI-driven tenant screening tools can quickly analyze applicants' financial history, credit scores, and rental history, allowing property managers to easily identify high-quality tenants and reduce the risk of future evictions or delinquencies.

4. Advertising and Marketing

Are you challenged to target your marketing efforts? AI can help! Rather than displaying ads for wide groups of people based on demographics or search history, artificial intelligence can capture and analyze the demographics and IP addresses of people who click on real estate ads and then serve up those same ads to people most like them, and therefore most likely to research.

5. Answering Calls and Setting Appointments

Your email inbox is overflowing. You have a lot of calls about your waiting list. Plus, you are behind on follow-ups because your office should have five people, and it has gotten three. With the day consumed by answering simple questions and going back and forth with prospects, you have almost no time to do your main job: provide positive resident experiences. Getting residents to recertify, renew their lease requires time, care, and focus—none of which you can spare.

With all the technology today, prospective residents are still most likely to call your property (75 percent) versus email (23 percent) and text (2 percent) for information. Artificial intelligence could answer these calls for you. A.I. can provide virtual leasing assistants (VLA) for the multifamily industry that are a conversational automated assistant that answers calls, texts, and chats, 24/7. It answers your prospects' leasing questions, collects information, and sets appointments when housing staff are not available, and it is successful at converting inbound calls to appointments.

6. Enhance Resident Experience

AI-powered chatbots and virtual assistants can provide instant support to tenants, answering questions and addressing concerns 24/7. By offering a more personalized and efficient communication channel, AI can help improve tenant satisfaction and foster a sense of community within the property.

A distinctive touch is still essential to any community — but AI support for tenants can ensure the property management company's humans are available to manage the highest-priority items in person to ensure residents' needs are met.

Want to get started on a path to AI?

After implementing an AI solution, property management companies reported:

- A 25% reduction in time spent on routine administrative tasks, allowing property managers to focus on more strategic initiatives.
- A 20% decrease in maintenance costs due to implementing predictive maintenance strategies.
- A 15% reduction in energy costs, driven by AI-powered energy management systems.
- Improved resident satisfaction, thanks to the enhanced communication and support provided by AI chatbots.

To begin implementing AI in your multifamily operations, start by identifying the areas where AI could have the most significant impact. Research AI-driven property management platforms, tenant screening tools, and energy management systems, and consider investing in those that align with your PHA's or multifamily owner's business goal. Join industry forums and attend webinars to stay updated on the latest AI trends and tools, and network with other PHA and multifamily professionals to learn from their experiences with AI implementation.

Recognition and appreciation are given to Jeff Hamann, Multifamily Finance Blog for his significant contribution to this article.

Opportunity and Assistance for Small and Rural PHAs



During the pandemic, HUD issued several notices to provide additional guidance for small and rural PHAs regarding Energy Performance Contracts. The notices went largely unnoticed as PHAs dealt with the pandemic.

PIH 2020-30 (https://www.hud.gov/sites/dfiles/PIH/documents/PIH2020-30.pdf) and PIH 2021-30 (https://www.hud.gov/sites/dfiles/PIH/documents/PIH2021-30.pdf) apply to eligible PHAs that operate a public housing program and meet the requirements of a small and rural PHA. A PHA can freeze energy consumption (HUD's Frozen Rolling Base Program) using the average annual consumption for the most recent three-year period for a period of up to 20 years – a huge opportunity for small, rural PHAs! All cost savings accrue to the PHA and may be used for any eligible public housing operating expenses at the PHA's discretion. See eligible PHAs link -

https://www.hud.gov/program_offices/public_indian_housing/pha/lists

PIH 2018-20 (https://www.hud.gov/sites/dfiles/PIH/documents/PIH_2018-20_UPP_Notice.pdf) is directed toward small and medium sized PHAs that consider the potential benefits of implementing an EPC using HUD's add-on subsidy and/or resident paid utility incentives in partnership with their local utility company.

2RS Consulting LLC and Enlightened Enterprises Inc.

To assist small and rural PHAs in utilizing this significant new opportunity, 2RS Consulting and Enlightened Enterprises, Inc., have teamed to help small and rural PHAs by:

- 1. Providing education and guidance on the HUD notice,
- 2. Conducting a preliminary audit review of the PHA's energy efficiency needs,,
- 3. Facilitating development of an energy efficiency project to take advantage of the extended FRB, program benefits and other local, state, and federal incentives, and,
- 4. Supporting the implementation of the project.

Enlightened's President and CEO, Michael Nail said," it is exciting for us to work with small and rural PHAs in this underserved market to bring about enhanced energy efficiency, cost savings and greater comfort and reliability to their residents." Adding to Nail's comments, Bob Somers, PE, and Principal of 2RS Consulting said, "installing new energy efficient toilets and other water saving devices, new lighting, state of the art HVAC systems and even solar can not only save the agencies monies but can better position them for a more resilient, reduced carbon, and financially stable future."

For more information or to schedule a no-cost initial consultation, Contact: Laurie Johnson, 2RS Consulting, 434-242-7220, lauriej@2rsconsulting.com or, Michael Nail, Enlightened Enterprises, Inc. 301-639-3767, Enlightened1on1@gmail.com

WattsHot Maintenance Corner

It is only Fall, but are maintenance crews already thinking about snow?



It is Never too Early to Prepare for Winter

It is only Fall, but are maintenance crews prepared for winter? If property managers at multifamily properties hired a company with dedicated snow professionals, they already are. A lot goes on behind the scenes as multifamily property owners get ready to properly provide snow and ice management services to ensure sites are safe and accessible to staff and residents. That planning and financial investment must be done whether or not is snows.

Here are a few ways asset managers can help make adjusting to snow and ice removal a more seamless experience:

Do not wait until Fall to source and sign.

Signing your contracts as soon as possible allows your snow professional to begin allocating labor, equipment, and materials for facilities. With recent supply chain issues, the lead time for purchasing snow equipment has increased. Waiting until closer to winter to sign (or even start the request for proposal process) may mean the contractor has closed the door on new contract signings. Contractors understand their capacities and cannot risk over-extending those resources, which can lead to service failures. An industry best practice is to have your contracts signed no later than November 1.

Open the lines of communication.

Long before the first snowflakes fall, asset managers should meet with service providers to collectively review the agreed-upon scope of work, making sure that both parties have a clear and defined understanding of service expectations. This is a great time to let your service provider know of site changes that will affect service, whether it is operating hours, shift changes, keyed access details, changes in priority areas, property manager contacts, etc. For example, if the contractor is not aware of schedules, a delay in service could result in a slip and fall.

Say yes to the preseason walkthrough.

Snow and ice treatment contractors should request a preseason site walkthrough. If they do, say yes. If they do not, request one. A thorough preseason walkthrough at the property sites allows both parties to finalize:

- Communication plan (pre-/during/post-storm communications) for both parties.
- Service reporting procedures, including if you require the service provider to use your app to document service verification.
- Site assessment, including photos and videos, to identify existing damages and safety concerns that could become a liability issue during operations.

Site Assessment

The site assessment will be broken into three areas. Results should be documented on the site engineering plan and site maps that operators will rely on when servicing the site.

Hazard and damage assessment.

Inspect all exterior surfaces, buildings, and structures to identify existing or potential hazards and damage. This will allow you to address necessary repairs before the season and protects the service provider from being held responsible for damage they did not cause.

Site and environmental assessment.

Identify conditions that could present challenges in their efforts to meet expectations. These typically include structures or surfaces that may require unusual care, such as parking garages or specialty pavers; melt-and-refreeze areas of concern; proximity to ponds or other bodies of water that could be compromised by salt runoff; and poor concrete or asphalt conditions such as potholes or cracks/spalling.

Behavioral risks.

Identify and remedy social risks that may affect staff and resident safety and security during operations. These include pedestrian access and walking patterns; security concerns; and expectations for extreme weather events. The relationship between an asset manager and a snow contractor is key to a long and successful partnership. A great relationship starts with good dialogue and a great understanding of hazards and expectations. Working together toward a common goal can reduce liability, improve service, and ensure your expectations are met.

Recognition and appreciation for their contribution are given to the Snow & Ice Management Association (SIMA), the industry leader in education, training, and resources for professional snow managers at www.sima.org.

WattsHot at HUD

HUD has published updated guidance for Public Housing Authorities (PHAs) and owners of Multifamily Assisted Housing participating in programs through which residents benefit from electricity generated by solar panels at an off-site array or on-site solar facilities. The guidance aims to help program participants understand, implement, and benefit from expanding clean energy programs. Learn more and view the updated guidance in **HUD's press release**.



HUD Announces Funding Navigator to Connect Program Participants to Billions of Dollars in Federal Funding and Tax Credits to Improve Carbon Reduction and Climate Resilience. The easy-to-use interactive tool allows the user to browse and sort funding opportunities for billions of dollars in funding available under the Inflation Reduction Act (IRA), Bipartisan Infrastructure Law (BIL). As a part of President Biden's Investing in America agenda potentially eligible entities will be able to sort funding resources based on audience, activity, funding type, location, and other items. The Funding Navigator helps HUD program participants maximize the utilization of IRA and BIL resources for carbon reduction and climate resilience efforts.

Check out the Build for the Future: Welcome to the Resources video: https://www.voutube.com/watch?v=606m2iKSvk8

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Look for funding opportunities on the Funding Navigator:

https://www.hudexchange.info/programs/build-for-the-future/funding-navigator/

HUD continues its work to increase the supply of affordable and sustainable housing by releasing the **Climate Resource for Housing Supply Framework**. The Framework discusses how climate-related investments can support the development of housing, particularly affordable housing. Key objectives of this framework are to increase awareness of new funding that can be used to address both the housing shortage and climate change, and to demonstrate ways to increase project viability by layering new funding sources with existing resources.

Small PHA Opportunity to Undertake a Streamlined EPC Project

The Economic Growth Act authorized HUD to permit eligible PHAs to freeze their three-year rolling base consumption level (RBCL) for utilities costs used to calculate Operating Subsidy for each project. PHAs that qualify as Small Rural PHAs can freeze consumption using the average annual consumption for the most recent three-year period for a period of up to 20 years. HUD guidance is provided in PIH Notices 2020-30 and 2021-30. Over 50 small PHAs are participating in the small rural frozen Rolling Base Program.

PIH Notice 2018-20 introduces a new initiative called the EPC Utility Partnership Program (UPP). EPC-UPP encourages more PHAs, especially small- and medium-sized PHAs to consider the potential benefits of implementing an EPC in partnership with utility companies. This Notice also includes a new simplified approval and verification process for low-risk EPC projects.

HUD is developing webinars and online training to encourage greater participation among small eligible PHAs. With the incentives provided by the Inflation Reduction Act, small PHAs had a unique opportunity to stack incentives to achieve greater energy efficiency and resiliency. Training availability is anticipated in the 4th guarter of 2023.

Refer to the link below to learn more about HUD's Small Rural Frozen Rolling Base (SRFRB) and Utility Partnership Program (UPP) for small to medium PHAs. https://www.hud.gov/program_offices/public_indian_housing/programs/ph/pheb/eperformance.

To learn more about the HUD incentives under both programs, visit the link under Technical Assistance Videos - https://www.hud.gov/program_offices/public_indian_housing/programs/ph/pheb/eperformance#technical

WattsHot in Native American News

The Office of Indian Energy has made significant accomplishments in advancing clean energy in American Indian and Alaska Native communities in Fiscal Year 2023 as depicted in a short video.

https://www.youtube.com/watch?v=4KP0LQIDTkk

These efforts support DOE's mission-driven priorities to promote tribal energy development, efficiency, and use; reduce or stabilize energy costs; enhance and strengthen tribal energy and economic infrastructure; and electrify Indian lands and homes. Next year promises to be even more exciting.



HUD Healthy Homes Program Helps Alaska Native Villages Adapt to Change

Gene is one of seven homeowners in Gakona getting health, safety, and energy-efficiency improvements through the U.S. Department of Housing and Urban Development's (HUD's) Healthy Homes program, designed to reduce environmental hazards in underserved communities. The U.S. Department of Energy's National Renewable Energy Laboratory (NREL)—from its Alaska Campus in Fairbanks, previously the Cold Climate Housing Research Center—has worked with seven other Alaska communities on similar Healthy Homes projects.



The manufactured housing in the region was not designed for the harsh Alaska climate and has roof, foundation, and moisture problems, like many homes across the region The Native Village of Gakona sits in a wide valley boxed in by mountains. To the north, the Alaska Range curves across the sky; to the south, the Chugach Range walls off the coast; and to the east, the 16,000-foot peaks of Blackburn and Sanford tower on the horizon. Weaving through these giants, the Copper River holds one of the world's richest runs of wild red salmon. This region has been home to the Ahtna Athabascan people for thousands of years. While they used to travel in small groups from place to place, today they have mostly settled in eight villages scattered between the mountains.

The Native Village of Gakona sits alongside the Copper River, a glacial river in south-central Alaska and one of the richest red salmon fisheries in the world. The Ahtna Athabascan people have subsisted on these local resources for thousands of years.



Despite their rich culture and knowledge of the land, Alaska Native communities face enormous challenges regarding energy, housing, and health. Over 3,000 households in rural Alaska still lack running water and wastewater, and Alaska Native elders and children suffer from the highest rates of upper respiratory distress in the United States, thanks in part to poor housing. While Alaska Native people traditionally lived in seasonal shelters built from log and other local materials, in the late 20th century they moved into homes provided by the federal government. These homes, however, were largely prefabricated outside of Alaska and were not designed for the extreme environment or frozen ground.

Gene's house sits on unstable soils in a low point in the valley. Every spring, water comes down and goes right underneath this house, making the house tilt. It is even harder because Gene is paraplegic and uses a wheelchair to get around. Through the Healthy Homes program, workers upgraded lighting and ventilation in Gene's home and installed a handicap-accessible ramp so he could come and go safely.

While innovative technologies play a key role in the clean energy transition, it is also critical to improve what is already there. In Alaska, there is a lot of substandard housing, so retrofits will always be part of the solution. Some improvements included workers installing steel beams under the compromised wood beams to stiffen the foundation and level the house.

While many NREL researchers are doing groundbreaking R&D to chart the nation's path to clean energy, the Alaska Campus focuses on deploying these technologies in frontline communities. Sometimes that means creating new housing designs like a **demonstration house in Unalakleet**, working with Advanced Research Projects Agency–Energy and tribal partners to manufacture local, **sustainable building materials**, or helping entire villages like Newtok relocate due to coastal erosion.

Many rural Alaskans do not have the financial resources or knowledge to address the housing deficiencies they inherited. When new homes were introduced, with modern building materials and mechanical systems, most Native families received no training on how to operate or maintain them.

Through the HUD Healthy Homes program, upgrades included lighting, add vents to the roof to prevent mold growth, install heat trace on his water lines to prevent freezing, and make other retrofits. While fixing homes in Gakona and other Healthy Homes communities makes an immediate difference for the families living in them, it has research value as well. The techniques being used to stabilize foundations, improve air quality, and reduce energy use will inform the next generation of technologies that will be deployed in rural communities and extreme environments nationwide.

NREL has worked with eight rural villages across Alaska on HUD Healthy Homes projects to improve the health, safety, and energy efficiency of homes in extreme climates. **See a full list of Healthy Homes projects**. And learn more about **NREL's Alaska Campus**. Sept. 29, 2023, | By Molly Rettig | Contact media relations.

Native American Programs

Tribal Nations are on the frontlines of climate change, which threatens Tribal homelands, food sources, cultural resources, and sacred ways of life. Native communities have faced chronic underinvestment for generations, and climate impacts—including drought, wildfires, rising sea levels, and extreme weather events—have exacerbated pre-existing challenges and inequities.

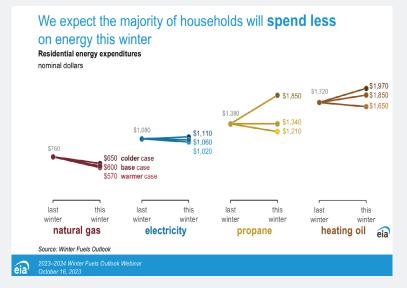
A recently published guidebook summarizes the clean energy, climate mitigation and resilience, agriculture, and conservation-related funding programs in the Inflation Reduction Act for which Tribes are eligible. The guidebook also provides information on how Tribes can leverage new and expanded clean energy tax credits to reduce pollution and energy costs on Tribal lands. Specifically, the guidebook identifies programs and sources of funds specifically allocated for Tribal communities; and provides a guide to Tribal eligibility for other Inflation Reduction Act funding programs. https://www.whitehouse.gov/wp-content/uploads/2023/04/Inflation-Reduction-Act-Tribal-Guidebook.pdf

Energy Forecast – Energy Information Administration

EIA expect U.S. households that use natural gas, electricity, or propane as their main heating fuel to spend less on heating this winter compared with last winter. Households that use heating oil are expected to spend slightly more.

Average U.S. natural gas bills expected to decrease this winter

EIA forecast lower average natural gas bills for U.S. consumers that heat their homes primarily with natural gas this winter heating season (November 1 to March 31) compared with last winter. The lower residential winter natural gas expenditures EIA forecast in the 2023 Winter Fuels Outlook supplement to our October Short-Term Energy Outlook (STEO) are due, mainly, to lower natural gas prices. The wholesale U.S. natural gas spot price at the national



benchmark Henry Hub started last winter heating season averaging \$5.66 per thousand cubic feet (Mcf) in November. This November, EIA expect the Henry Hub price to be 45% lower than last year, averaging \$3.12/Mcf.

OPEC+ production. Beginning this month, our Short-Term Energy Outlook (STEO) OPEC crude oil production table will feature a new OPEC+ crude oil production forecast. The estimate includes combined crude oil production from the 10 members of OPEC subject to production targets (**OPEC-10**) and all non-OPEC crude oil production within the OPEC+ group. EIA expects OPEC+ members will decrease their crude oil production by 0.3 million barrels per day (b/d) in 2024 compared with this year.

Global oil markets. Global oil inventories in our forecast fall by 0.2 million b/d in the second half of 2023 (2H23) because a voluntary production cut from Saudi Arabia and reduced production targets among OPEC+ countries keep global oil production below global oil consumption. EIA expects upward pressure on crude oil prices, with the Brent spot price increasing to an average of \$95 per barrel (b) in 2024.

Natural gas inventories. At the end of October, EIA expect U.S. natural gas inventories to total 3,854 billion cubic feet, 6% more than the five-year (2018–2022) average for the end of October.

Electricity generation. EIA forecasts that electricity generation from natural gas will account for about 42% of U.S. generation in 2023, an increase from 39% in 2022. This increase results from relatively low prices for natural gas; the retirement of 10 gigawatts (GW) of coal-fired generating capacity this year; and 5 GW of new, highly efficient natural gas-turbine capacity entering service. EIA expects natural gas-fired electricity generation to fall slightly to a 41% share in 2024. Despite a forecast increase in overall electricity generation in 2024, EIA expects generation from both natural gas and coal will fall next year in part because of increasing generating capacity from renewable sources. EIA's forecast assumes 40 GW of solar and wind generating capacity will enter service next year, an increase of 16% from this year, leading to the share of electricity provided by renewables rising from 22% in 2023 to 25% in 2024.

Data source: U.S. Energy Information Administration, Short-Term Energy Outlook (STEO), Winter Fuels Outlook.

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