FAQ: UAMPS Power County, Idaho Combined-cycle Plant

What is the purpose of the proposed Power County plant?	Operating on a non-profit basis, UAMPS delivers comprehensive wholesale electric energy services, providing reliable, affordable, and sustainable energy solutions for its 50 members from Utah, Arizona, California, Idaho, Nevada, New Mexico, and Wyoming. The proposed Power County plant is essential for ensuring that UAMPS member communities have access to electricity as their energy needs grow. By providing a constant and dependable power supply, a base load plant supports the seamless integration of renewable sources like wind and solar. This guarantees grid stability and helps prevents power outages, ensuring that homes and businesses have uninterrupted access to the electricity they need. The plant's quick-response capability and high efficiency make it a crucial component of a resilient and sustainable energy infrastructure, supporting the transition to a greener future while maintaining dependable service today.
What type of power generation will the plant use?	The Power County plant will feature a state-of-the-art 360 MW Frame-style Combined Cycle Generation Plant. This advanced system operates in two stages: first, a gas turbine compresses air and mixes it with combusted fuel, creating a high-temperature mixture that spins the turbine blades. This rotation drives a generator to produce electricity. The high-temperature exhaust is then captured by a heat recovery system, which powers a secondary steam turbine and generator. By utilizing the exhaust heat, this combined cycle process significantly enhances efficiency, maximizing energy output and ensuring highly efficient power generation.
Where will the plant be located?	The plant will be located in Power County, Idaho, a region aptly named for its historical significance in electricity generation and a cornerstone of energy production since the early 20th century. This new natural gas plant will build on that proud legacy, reinforcing Power County's vital role in power generation and its ongoing importance to regional development. The proposed plant is expected to generate additional property tax revenues for the county, providing essential funds to improve local roads, schools, and services. Additionally, it will create 10-20 permanent jobs, boosting economic growth and enhancing community well-being.
How much land will the plant occupy?	The plant will use 40-50 acres for operations and an additional 10-20 acres during construction. This minimal land footprint ensures efficient use of space and minimal environmental disruption. Unlike solar systems that require over 2000 acres for similar energy output, this natural gas plant uses a compact footprint, minimizing environmental impact and preserving land for other community and agricultural needs.

Why is UAMPS choosing natural gas instead of nuclear for the Power County plant?	UAMPS is choosing natural gas over nuclear for several practical reasons. Natural gas plants can be developed and brought online much faster than nuclear plants due to shorter construction and regulatory approval times. This accelerated timeline will meet members' increasing energy needs more promptly. Additionally, the initial capital investment for natural gas plants is significantly lower, making it a more cost-effective option for UAMPS. While nuclear energy is low in greenhouse gas emissions, natural gas plants produce far fewer pollutants compared to coal, significantly reducing air pollution. This combination of speed, cost-efficiency, environmental benefits, and adaptability makes natural gas the smart and practical choice for UAMPS, effectively meeting our immediate and future energy needs.
What measures are taken to ensure water conservation?	The plant will utilize an air-cooled system, which uses four times less water per megawatt-hour compared to coal. By significantly reducing water usage and wastewater discharge, this system ensures regulatory compliance and protects local ecosystems. It offers substantial cost savings through lower water procurement and treatment expenses, while enhancing operational reliability by reducing dependence on local water supplies. This approach not only safeguards the area's natural resources but also underscores our commitment to sustainable and responsible energy production.
How quickly can the plant reach full power and what is its efficiency?	The plant's state-of-the-art technology enables it to reach full power in just 1 to 3 hours, ensuring a reliable base-load power supply. Designed to achieve electrical efficiencies exceeding 60%, the plant maximizes fuel resource utilization while minimizing environmental impact, making it a highly efficient choice for power generation.
What safety measures will UAMPS take to ensure community safety?	UAMPS is deeply committed to community safety and will implement a comprehensive suite of measures to ensure it. Rigorous inspections will be conducted regularly to maintain the highest standards, while advanced detection technologies will be deployed to quickly identify and address any potential issues. Our comprehensive maintenance programs will ensure the plant operates smoothly and efficiently at all times. Additionally, we will provide thorough training for all staff members, equipping them with the knowledge and skills needed to manage any situation effectively. Our robust emergency response plans will be in place to swiftly and efficiently handle any unexpected events, all while adhering to the strictest regulations.

Why doesn't UAMPS rely solely on renewable energy sources?	Renewable energy sources like wind and solar are inherently intermittent, meaning they do not produce power consistently throughout the day. Solar power depends on sunlight, and wind power depends on wind availability, both of which can be unpredictable, posing significant challenges to maintaining a stable and reliable power supply. A natural gas base-load plant provides a continuous and reliable source of power, ensuring that there is always a stable supply of electricity to meet the community's needs. While the cost of renewable energy technologies has decreased, the infrastructure required to store and distribute renewable energy efficiently is still developing. Natural gas base-load plants offer a more immediate and cost-effective solution to meet growing energy demands while the renewable infrastructure catches up. Relying on a diverse mix of energy sources, including natural gas, reduces the risk associated with dependency on a single source of energy, ensuring a more resilient and secure energy future capable of withstanding various market and environmental challenges.
What are the economic benefits of the plant, and how does it ensure future readiness?	The plant promises significant economic benefits by creating well-paying jobs, boosting local tax revenue, and lowering energy costs through its exceptional efficiency. Its versatility in using various fuel types, including renewable natural gas and hydrogen, guarantees that it remains future-ready and efficient as energy markets evolve. By enhancing grid resilience and reliability, this plant secures a robust and sustainable energy future for our communities.