SMALL MODULAR REACTORS: PREPARING FOR THE FUTURE

APPALACHIAN POWER™
An AEP Company

Demand for reliable, clean energy is growing, and AEP is committed to working with regulators, policymakers and stakeholders to ensure access to this reliable, affordable and clean energy. One important way to meet demand for clean, dispatchable energy and keep pace with future energy demand is through **small modular reactors (SMRs)**, which can safely meet this need.

THE FACTS ABOUT SMRs

These advanced nuclear reactors can generate between 50 and 500 megawatts (MW), about one-third of the energy of a traditional nuclear reactor. SMRs are a fraction of the size and utilize the latest advances in design to ensure safe and efficient construction and operation. [1]

With a simpler design that prioritizes safety, SMR designs take advantage of natural forces like gravity, condensation or pressure differences to accomplish safety functions and do not rely on human interventions to keep the reactor core safe.

Lifespan:
At least 60-80 years

Carbon emissions:
None

OUR ALL-OF-THE-ABOVE STRATEGY TO ACHIEVE NET-ZERO

AEP's all-of-the-above strategy can help achieve a reliable energy future. Nuclear power is the largest clean source of electricity generation in the U.S., and SMRs can play an important role in the future by:

Preserving reliability: AEP is committed to reducing harmful emissions and our environmental footprint. Maintaining energy reliability is a key factor in this effort, and SMRs can consistently power communities and complement other carbon-free energy sources.

Maintaining affordability: We strive for rates that are affordable and stable. Advances in nuclear technology suggest SMRs can also be a factor in preserving the affordability of reliable, clean power.

Encouraging appropriate investment: Developing nuclear facilities takes many years. That's why AEP is focusing on early site development for nuclear energy while advanced technologies are being developed and scaled. We want to make appropriate investments at the appropriate time to ensure costs are predictable and affordable.

Providing diversification: When intermittent resources aren't available, other resources – such as nuclear – are critical to the stability and functionality of the grid. We intend to continue deploying a wide variety of power generation resources to meet customers' needs.

Supporting communities: As traditional fuel sources are retired, we believe it's important to find opportunities to utilize new technologies in those same areas. Development of a small modular reactor can provide new opportunities for existing skilled workers, generate additional jobs and generate tax revenue while also spurring economic growth.

1. https://www.iaea.org/newscenter/news/what-are-small-modular-reactors-smrs