



# NUSCALE

## Let's change the power that changes the world

NuScale Power has developed game-changing small modular reactor (SMR) nuclear technology. At the heart of this technology is the fully factory-fabricated NuScale Power Module™ (NPM) which produces electricity and process heat for a variety of industrial applications, including desalination for clean drinking water, to improve the quality of life for all humankind.

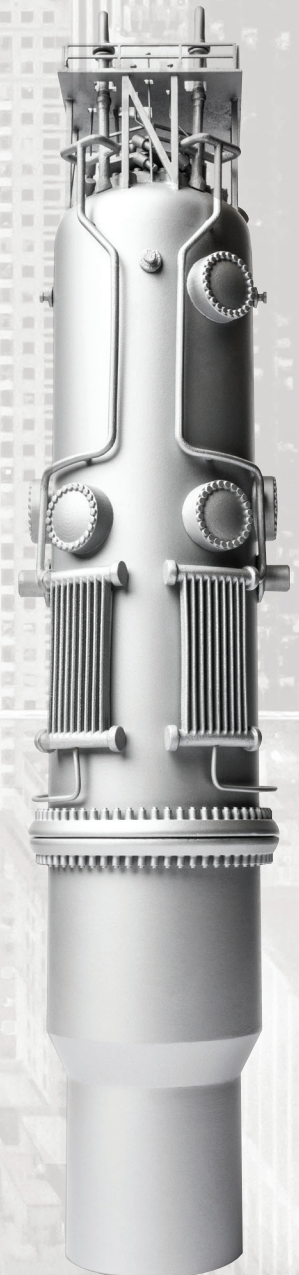
### SMARTER

NuScale is not nuclear as the world knows it. Building on proven nuclear technology with a focus on integration and simplification, we created a smarter design that offers an economic and carbon-free power solution with unparalleled safety, flexibility, reliability, and resiliency. The NPM brings together traditional components – the reactor vessel, steam generator, and containment – into a single, simplified module. Each module can produce 60 megawatts of electricity (MWe), and a NuScale power plant can house up to 12 NPMs for a total output of 720 MWe (gross). This scalability feature is unique to NuScale and allows for customization of facility output to match demand.

### CLEANER

The NPM produces clean energy that is 100% carbon-free. In addition to producing reliable always-on baseload power no matter the time of day, weather, or season, the NuScale plant can load follow to complement intermittent power generation sources such as wind, solar, and hydropower.

The 60 MW of carbon-free electricity that one NPM produces can power 45,000 homes in the U.S. The 720 MW of carbon-free electricity that a 12-module NuScale plant produces is enough to power nearly 540,000 homes. The NPM also has the unique ability to tailor electric and steam power outputs and can provide process heat for desalination, hydrogen production, and oil refining applications to decarbonize the industrial sector.



## SAFER

NuScale's power plant design incorporates several simple, redundant, and independent safety features—setting a new standard for nuclear safety performance and offering unparalleled system resilience. NuScale's Triple Crown for Nuclear Plant Safety™ design ensures that the NuScale Power Module safely shuts down and self-cools, indefinitely with no need for operator or computer action, AC or DC power, or additional water. Our groundbreaking SMR technology is invulnerable to cyber-attacks, geomagnetic disturbances, and electromagnetic pulse attacks. The NPM has Black Start capability to start up from cold conditions without the aid of external grid power, and can also serve as a First Responder power source after a grid-loss event—providing power in 60 MWe increments once the grid is restored.

## COST COMPETITIVE

NuScale's smarter plant design is efficient, scalable, and cost-competitive. The NuScale plant has a 36 month construction schedule that is significantly shorter in comparison to large gigawatt-sized nuclear power plants. The option to add modules incrementally reduces initial capital costs, and the very first NPM generates power and revenue immediately. This scalability and shorter construction schedule offers an unprecedented cost-effective and flexible energy option with lower financial risks. Cost savings are also realized through repetitive manufacturing. Safety-related fabrication work is taken out of the field since modules are both produced and tested in a factory. This standardizes the manufacturing process, increases efficiency, improves quality, and lowers cost.

With these smarter, cleaner, safer, and cost-competitive features, NuScale is changing the power that changes the world through its mission to improve the quality of life for all humankind by continuously improving nuclear power.



Artist's conception of NuScale Power's proposed SMR plant



541.360.0500 | [nuscalepower.com](http://nuscalepower.com)

NuScale Nonproprietary © 2020 NuScale Power, LLC. Version 1.0