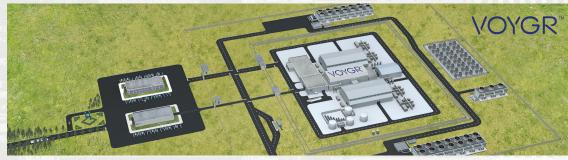
# **NUSCALE** Advanced Nuclear Technology To Power The Future

With the first ever small modular reactor (SMR) to receive U.S. Nuclear Regulatory Commission (NRC) design approval, NuScale is bringing the first SMR power plant online in the U.S. this decade.

Our SMR, the NuScale Power Module<sup>™</sup>, can generate 25 percent more power at 77 megawatts of electricity (MWe), resulting in a total output of 924 MWe (gross) for our flagship 12-module VOYGR-12<sup>™</sup> power plant. We also offer smaller power plant solutions in four-module VOYGR-4 (308 MWe) and six-module VOYGR-6 (462 MWe) sizes that are underpinned by the rigorous safety case of our NRC-approved SMR design. With this new array of flexible power options, NuScale is poised to meet the diverse energy needs of its global customers.

	ELECTRIC CAPACITY MWe (gross)	ELECTRIC CAPACITY MWe (net)
NuScale Power Module™	77	N/A
4-module VOYGR-4 plant	308	293
6-module VOYGR-6 plant	462	441
12-module VOYGR-12 plant	924	884

# SMARTER, CLEANER, SAFER AND COST COMPETITIVE



#### NUSCALE VOYGR POWER PLANT

The NuScale VOYGR power plants are designed to be smarter, safer, cleaner, and more cost competitive than large gigawatt nuclear power plants. The beauty of the NuScale VOYGR plant design is its simplicity, making it less expensive to build, operate, and maintain. Our small modular reactor uses the principles of buoyancy-driven natural circulation; no pumps are needed to circulate water through the reactor. Modules are fully factory-built with no in-field construction, erection, or fabrication, and they are transported to the power plant site—taking safety-related work out of the field. NuScale VOYGR plants are also economical, as they reflect lower levelized and overnight costs on a per kilowatt basis when compared to large advanced nuclear plants.

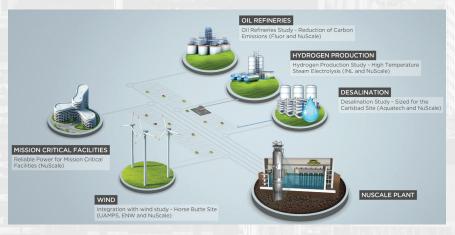
In terms of safety, NuScale's small modular reactor technology is second-to-none with features, capability, and performance not found in current nuclear power facilities. NuScale offers a fully passive safety system design, rigorously proven by our Triple Crown for Nuclear Plant Safety<sup>™</sup> which ensures that reactors will safely shut down and self-cool, indefinitely, and do so with no need for operator or computer action, AC or DC power, or the addition of water—a first for LWR technology.



The unparalleled safety of NuScale's SMR is foundational to the new level of nuclear power plant resilience we offer. Following a loss of offsite power or the loss of the transmission system grid, our plants can run in island mode, provide first responder power, and black start from cold conditions. The NuScale VOYGR<sup>™</sup> plants can be located at the "end of the line" or off-grid, without the requirement for offsite transmission source(s) to the station. The plants are resilient to natural events, with the modules and fuel pool located below grade in a Seismic Category 1 building; and designed to withstand an aircraft impact and is also resilient to EMP/GMD events. Finally, our non microprocessor-based module and plant protection systems use field programmable gate array technology that is invulnerable to cyber-attacks.

NuScale offers cost competitive carbon-free energy solutions to meet global power generation needs. Our plants have a small land footprint, simplified construction, and reduced construction schedules—all features that lower costs to the customer. NuScale has undertaken detailed studies of capital, operating, and decommissioning costs for its 12-module VOYGR-12, 924 MWe plant design. Based on the overnight cost estimate of an nth-of-a kind plant built in the southeast U.S. at a generic greenfield site, the levelized cost estimate (LCOE) is in the range of approximately \$40/MWh to \$65/MWh depending on the financial profile of the customer. A NuScale VOYGR plant offers competitive economics, reduced production cost volatility, and operating and maintenance costs better than those of the majority U.S. large nuclear power plants.

### **DIVERSE APPLICATIONS**



With a smaller land footprint, the plant solutions we offer support a variety of needs and geographic areas, including small grids, island installations, remote offgrid communities, and smaller coal power plant sites.

In addition to baseload power, the NuScale VOYGR plants offer operational flexibility for diverse applications. Electric and steam power outputs of modules can be tailored to different functions, such as desalination, oil refining, or hydrogen production. These

applications are traditionally powered by fossil fuels; the NuScale VOYGR plants provide a reliable, carbon-free power alternative.

Our strong safety case justifies an emergency planning zone in the U.S. that only extends as far as the site boundary (as opposed to 10 miles for current U.S. plants), allowing the NuScale VOYGR plants to be sited in close proximity to process heat off-takers, for district heating near population centers, and to repower retiring coal stations. The level of plant safety and resiliency that NuScale provides is appealing to hospitals, government installations, and digital data storage facilities that serve as mission critical infrastructure and need a limited amount of reliable electricity.

## THE NEW FRONTIER OF CLEAN ENERGY

NuScale continues to engage with U.S. and international stakeholders, reflecting a growing enthusiasm across the world for the unique features, capability, and performance of our SMR technology and the clean energy it provides. We maintain strong momentum toward commercialization, including supply chain development, standard plant design finalization, planning of plant delivery activities, and start-up and commissioning plans.

With the capability to deliver scalable, economic power plant solutions, NuScale is leading the way into a new frontier of clean energy.

