



SMR

Rolls-Royce SMR

Clean, Affordable Energy for all

Foundation for Science & Technology

New Nuclear & the UK Energy Strategy

15th June 2022

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SECURITY CLASSIFICATION - Rolls-Royce SMR Data - Public - Not Listed



SMR

Rolls-Royce SMR Ltd is a technology vendor offering a complete SMR power plant on a turnkey basis.

Our development programme is fully funded with £495m through commercial equity and UK Government grant funding

Rolls-Royce SMR Ltd Shareholders



Rolls-Royce Group

60 years designing, manufacturing, supporting and operating nuclear technology



Constellation Energy

Operates the largest U.S. fleet of zero-carbon nuclear plants with over 18.7GW from 21 reactors at 12 facilities



BNF Resources UK Ltd

Extensive investments in the energy space and represented and advised by BNF Capital Limited, an FCA regulated UK-based investment advisory



Qatar Investment Authority

Invests in the energy transition and funds technologies that enable low carbon electricity generation

UK Government Grant Funding



Department for Business, Energy & Industrial Strategy



UK Research and Innovation

UK department of Business Energy and Industrial Strategy

Rolls-Royce SMR Ltd received the Low-cost nuclear (LCN) grant award by UK Research and Investment (UKRI)

There are many solutions to decarbonize

But most need clean electricity

At a vast scale...





SMR

Rolls-Royce SMR is a new way of building nuclear to meet the needs of **Net Zero** & support **Energy Security**

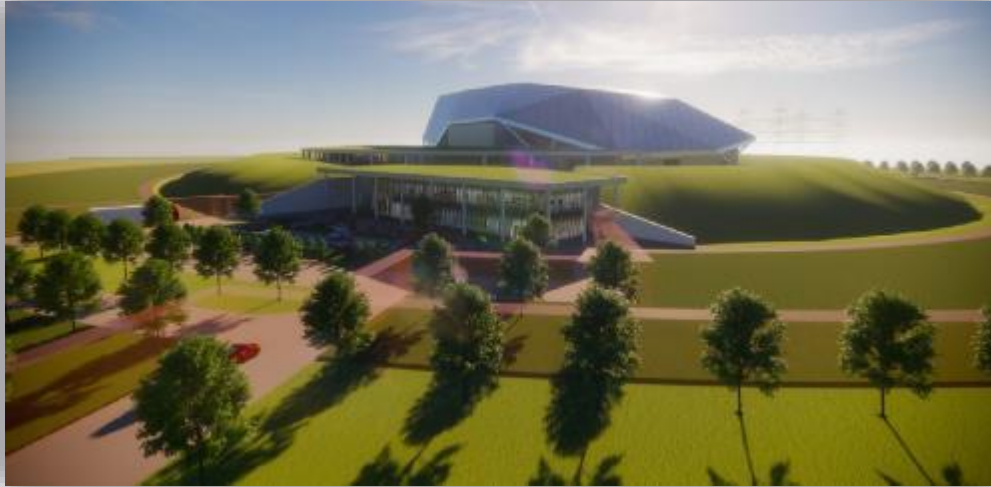
~470 MWe net output

60-year life @95% availability

Proven PWR Technology & Standard Fuel

Power station turnkey delivery

4 yr on-site Construction (Fleet unit)



Enhanced safety and security

1st unit on grid 2029

Adaptable, multi-use power & heat output

Capital cost under £2bn*

LCOE range £35-£50 per MWh**



* 2021 economics, fleet unit; costs based on UK labour rates ** 2021 economics, 2 unit plant, range dependent on financing mechanism





SMR

Rolls-Royce SMR is a factory fabricated product Modularisation of the whole power station, not just the nuclear island

Module Factories



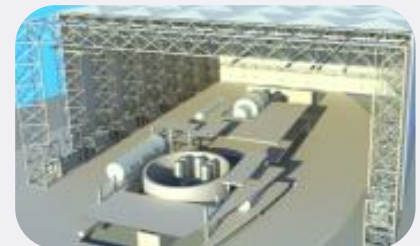
Primary Plant Modules



Mechanical, Electrical & Plumbing Modules



Civil Modules



Site Assembly Factory

Site Assembly

Modularisation
drives down cost

Improves
reliability

Improves
economies
of scale

Reduces
build time

Creates
stable long
term jobs

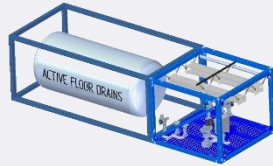
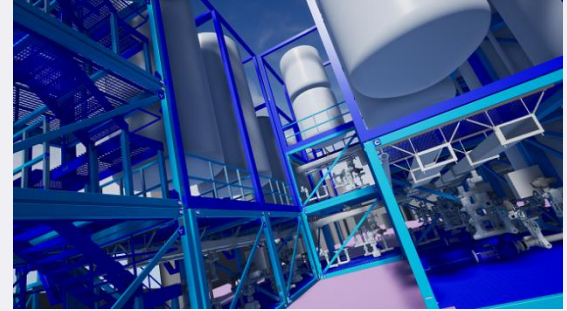
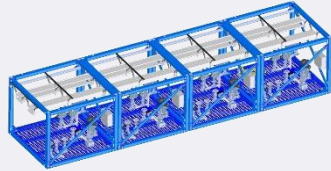
Provides
schedule
certainty



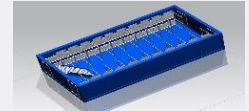
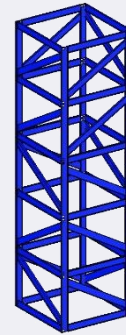
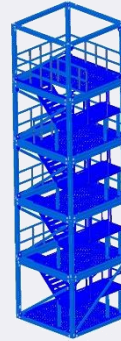
Standard Kit of Parts / Modular Architecture Development

Module kit of parts categories:

- Vertical and Horizontal MEP Modules
- Vertical and Horizontal Tank Modules
- Personnel Access
- Pipe Cable and Utility Routing
- Shielding and Segregation
- Structural Module
- EC&I Modules



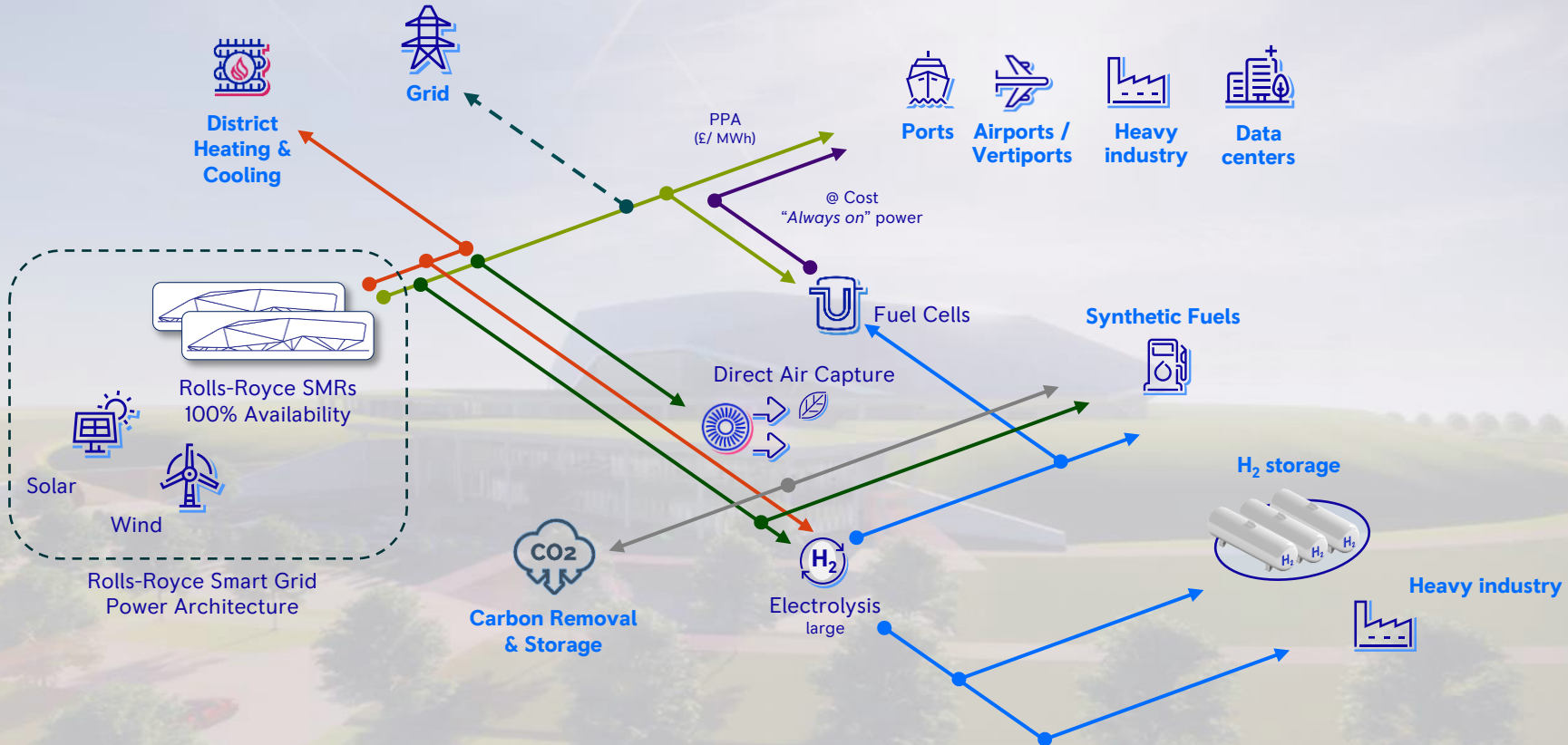
All based on a standard reference grid system





SMR

A Low-Carbon Integrated Technology and Industrial Offering optimizing Group level Capabilities and Scalable to Regional Demand and Applications





SMR

