Sustainable energy production

Dr Jo Nettleton Deputy Director Radioactive Substances and Installations Regulation 9 December 2020



What we do

Create a better place for people and wildlife protecting PEOPLE and the ENVIRONMENT



CREATING A BETTER PLACE



EA2025 A NATION RESILIENT TO CLIMATE CHANGE



EA2025 HEALTHY AIR, LAND AND WATER



EA2025 GREEN GROWTH AND A SUSTAINABLE FUTURE



EA's Responsibilities

Fisheries and angling



Flood risk management





CREATING A BETTER PLACE Radioactive substances regulation





Industry regulation



Waste management

Water resources



Agriculture



Water quality



Contaminated land



Environment Agency role in radioactive substances regulation



Nuclear Energy

- Most nuclear plants do not recover waste heat
- Opportunity for new nuclear plants to be cogenerating
 - Not viable to convert existing facilities
 - Some Gen IV designs offer higher temp opportunities
 - SMRs offer colocation opportunities
 - Potential economic benefits
- Currently provides baseload electricity
 - Opportunity for nuclear to contribute to a flexible and agile system



Current Policy





Department for Business, Energy & Industrial Strategy





New Ten Point Plan

Press release

PM outlines his Ten Point Plan for a Green Industrial Revolution for 250,000 jobs

Prime Minister Boris Johnson outlines his Ten Point Plan for a Green Industrial Revolution for 250,000 jobs.

Published 18 November 2020 From: Prime Minister's Office, 10 Downing Street and The Rt Hon Boris Johnson MP





Our Work on Advanced Nuclear Technologies (ANT)



Challenges

- Use of waste heat benefits the environment
 - Businesses and residents need to be close to use it
- Public acceptance
 - Small reactors on their doorstep
- Learning from other sectors
 - Not just electricity generation
 - Widen horizons
 - Share learning and experiences
 - Maximise resources





What would a cluster site look like?



Image reproduced with permission from The Royal Society.



What would a cluster site look like?



Image reproduced with permission from Hynet.



Thank you for listening

