



NEA – IFNEC workshop

Issues in the financing of nuclear new build

Session 2: Specificities of nuclear new build financing and core principles for risk allocation

14 January 2021

New UK model for nuclear construction



RAB likely to replace CfD

Programme for nuclear construction launched 2017

- Hinkley Point C now under construction. 3.2GW twin EPR. Majority owned by EDF
- Main economic support instrument Contract for Differences (CfD)
 - Consumer takes market price risk
 - £92.50/MWh strike price
- EDF and partners take full construction risk

Recent UK Government policy update

- Energy White Paper December 2020
 - Aiming to bring at least one large-scale NPP to Final Investment Decision by end-2024
 - Will explore Regulated Asset Base (RAB) model for attracting private investment
 - Will also examine potential for government finance
- RAB Model
 - Attractive to low risk, low cost-of-capital investors
 - Potential for firm low carbon power £40-60/MWh
- Sizewell C next large-scale nuclear project in the pipeline
 - Replica of Hinkley Point C
 - EDF minority, non-consolidated equity stake

Reducing the cost of finance



The cost of nuclear is more sensitive to financing costs than construction costs

Cost of electricity to customers (£/MWh)

Construction cost (£billion)

	16	18	20	22
WACC (post-tax nominal)				
4.0%	36	39	42	45
5.0%	43	46	50	54
6.0%	49	53	58	63
7.0%	55	60	66	72
8.0%	60	66	73	81
9.0%	66	73	81	89

Importance of investment grade credit rating

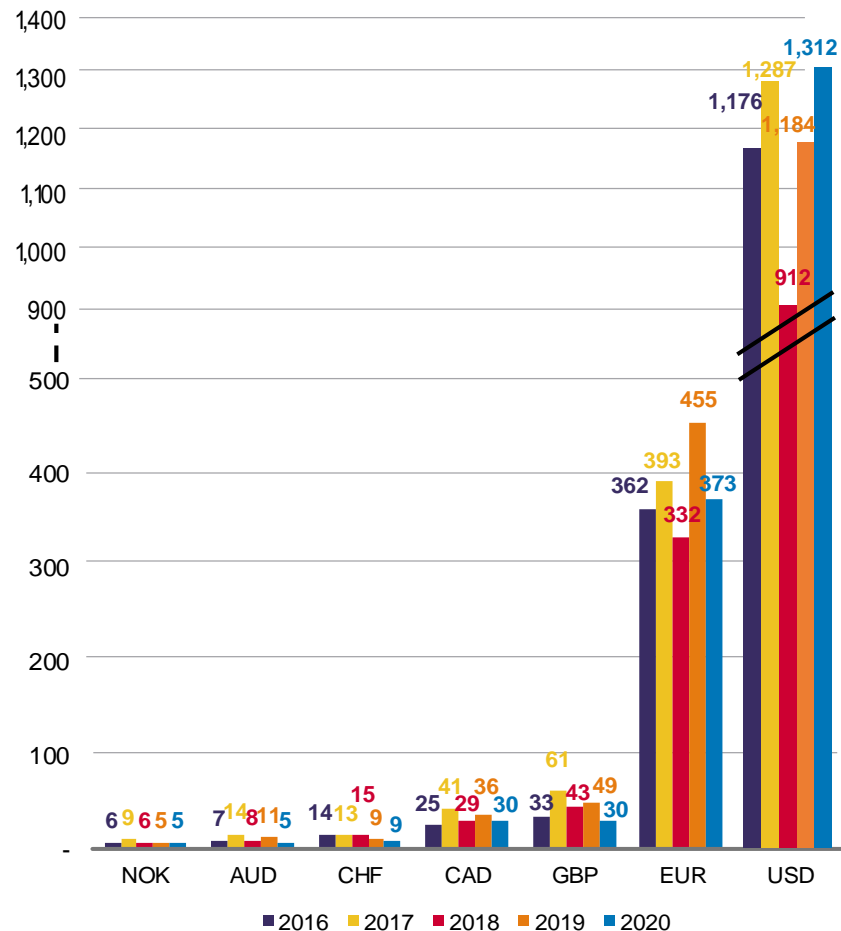


“A” range rating maximises probability of success and cost-effectiveness of debt markets

Total sterling issuance between 1 January 2006 and 13 January 2021 by issue rating (at least one rating as per description)¹



Total bond issuance (€bn)



Note
¹ Source: Dealogic. Sterling issuers excluding government and financial sector

Source
 Dealogic, Dec 2020
 Includes both Investment and non-investment grade issuances

RAB model for twin EPR at Sizewell C



Key components

- Risk reduction due to replication of Hinkley Point C
 - Design confidence created by Hinkley Point C precedent
 - Construction risk reduced through supply chain and contractor repeat experience
- Further risk protection for consumers
 - Simple risk-sharing mechanism to ensure aligned incentive on investors to manage construction and other relevant risks
- Protection of investors by Government or consumers on certain nuclear specific issues e.g. political discontinuation

... to deliver

- Low risk proposition for investors
 - Capable to support significant investment grade debt
 - Capable to attract significant equity from private investors
- Firm low carbon power in a range £40-60/MWh
- A package of wider benefits for UK:
 - 70% UK content during construction. Skilled jobs
 - Waste heat potential for higher efficiency green hydrogen, other heat applications
 - Deepening UK capability for subsequent nuclear