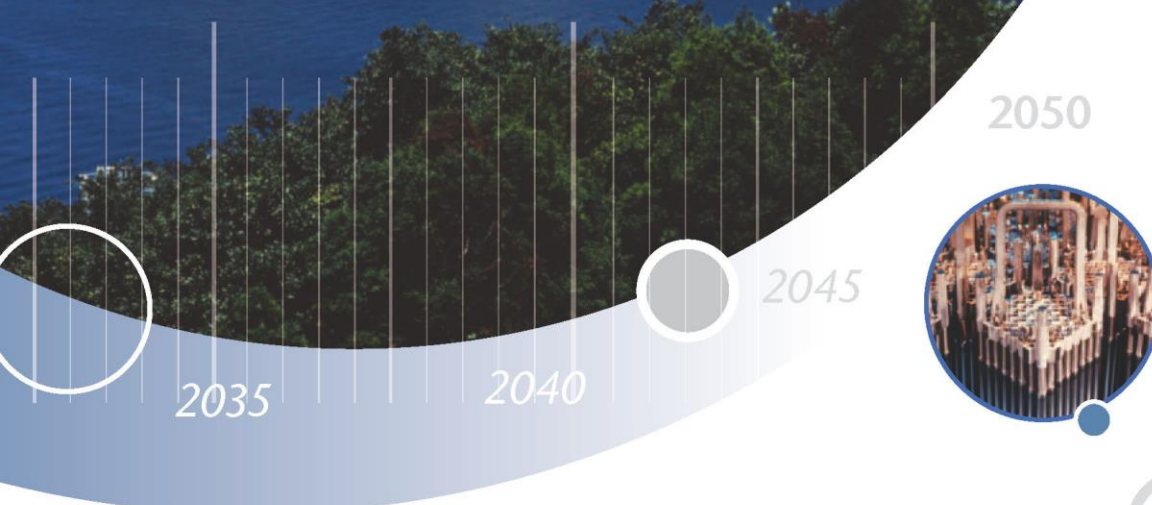




DRAFT Milestones and Recommendations: Financing

Technology Roadmap

Nuclear Energy





Investment needs in the 2DS

USD billion	2011-2020	2021-2030	2031-2040	2041-2050	2010-2050
US	27	74	240	302	642
EU	29	234	257	73	593
Other OECD	84	184	122	155	545
China	228	313	359	162	1 062
India	24	120	114	158	416
Latin America	15	11	39	51	116
Other developing Asia	14	69	40	31	153
ME and Africa	18	70	82	136	306
Other non-OECD	70	109	138	166	484
World	509	1 183	1 390	1 234	4 316



Milestones

- **Long term commitment at the country level**
 - **Clear commitment on role of nuclear and long term strategy for nuclear development**
 - **Need for price transparency and long term price stability**
- **Financing under different market structures**
 - **Long term power purchase agreements in regulated markets**
 - **Construction cost pass through**
 - **Favourable regulatory regime for raising finance in liberalised markets – i.e. UK contract for difference**
 - **Role of governments to de-risk projects and address changes in markets due to increased variable renewables**



Milestones

■ Different financing models

- Build own operate model (Rosatom) CASE STUDY?
- Mankala principle (cooperative model between shareholders) used in Finland
- Government to government deals
- Role of export credit agencies in providing risk guarantees
- Vendor equity financing
- Vendor originated ECA funding (up to 70% under OECD Export Credit Agency rules)



Recommendations:

	Timeline
Governments should provide a clear commitment and LT strategy for nuclear development	2015-2025
Governments should encourage investment in low-carbon electricity sources through technology-neutral policies such as carbon trading schemes, carbon taxes or mandates for low carbon electricity	2015-2020
International carbon credit schemes should treat nuclear power the same as other low carbon technologies	2015-2020
Governments should ensure that the structure of electricity markets provide price transparency and adequate long term price stability required for investments in large capital intensive base load power	2015-2025



Recommendations:

	Timeline
A refinancing strategy should be developed as part of a projects financing plan and implemented once the plant is operational and construction risks are no longer applicable.	Ongoing
Project developers should improve communication with investors and other fin institutions to better educate investors on the benefits of investment in NP post construction	2015-2025
Loan guarantees by both vendor governments and host governments are needed to cover construction risks. ECAs should continue to support financing by providing loan guarantees	Ongoing
Industry should improve its record of building “on time and to budget” to reduce risks to investors. Lessons learnt from new build and enhanced standardisation should help objective	Ongoing