

APPROACHES TO FINANCING A MULTINATIONAL REPOSITORY

INTERNATIONAL FRAMEWORK FOR NUCLEAR ENERGY COOPERATION
RELIABLE NUCLEAR FUEL SERVICES WORKING GROUP

FIVE KEY PHASES OF REPOSITORY DEVELOPMENT



**1. Site
Identification**



**2. Licensing/
Regulatory
Approval**



3. Construction



**4. Operation –
only phase with a
revenue stream**



5. Closure

CHALLENGING TO FINANCE 1 MNR BUT MAY BE “EASIER” TO FINANCE MANY

- 1 Work with other countries around the world that are interested in developing and hosting an MNR
- 2 For example, one in Europe, one in Asia, one in Australia, one in Africa and one in Americas
- 3 Agree on a harmonized site identification, investigation, licensing, construction, operational and closure model
- 4 All agree on a country that will go first for the development of MNR-1
- 5 All host countries create a project company MNR.INC with equal shares and sharing of costs of financing for the siting, licensing and construction of MNR-1. MNR.INC takes the completion risk (i.e.-all governments share)
- 6 ECA and ECA-covered commercial bank financing support provided by nations exporting equipment and services for the construction of MNR-1
- 7 All IP developed for MNR-1 belongs to MNR.INC and is licensed to MNR-1
- 8 At commissioning, MNR-1, is refinanced with private debt and equity with host and customer government backstop for uninsurable risks and an annual royalty payment to MNR.INC for use of IP
- 9 MNR-1 uses funding during the operations phase from the dedicated national accounts of customer countries to repay its debt and equity holders setting aside on an ongoing basis in a dedicated account the funds required for closure activities
- 10 Upon refinancing of MNR-1, MNR.INC uses its funds for the same process for MNR-2, MNR-3, MNR-4 . . .
- 11 One option to consider is whether the host government of MNR-1 has an option to withdraw from MNR.INC with the other host governments purchasing its equity in equal shares. This could be the upside for a country to accept to build the first MNR on its territory

WHAT DOES THIS APPROACH ACCOMPLISH

1

MNR-1 will have the largest risk in terms of siting, licensing and construction however all host governments share the upfront risk for siting, licensing and construction. Private funding will come in during the commercial operation

2

Due to harmonized approach and replication to the extent possible, risk for MNR-2, MNR-3, MNR-4 . . . will be decreasing. Siting, licensing and construction times will also decrease

3

As noted this morning under these assumptions, the time from project initiation to waste acceptance could be reduced from 40+ years to 25 years or even less

- a. Site identification could be reduced by as much as half, from 10 years to 5 years
- b. Licensing could be trimmed from 10 years to 8 years
- c. Construction could be completed in 10 years and the risk of cost overruns can be significantly reduced

4

The same host government funds are used to fund all MNRs so you do not need additional budget allocations.

5

The IP and know-how is shared by all host countries and the licensing provides them with an ongoing revenue stream

6

If you reward the first host country with the option to withdraw from MNR.INC countries will be incentivized to be the first to host the MNR

7

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George Borovas

T +8 135 251 0214

M +8 180 353 30214

george.borovas@shearman.com

shearman.com



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