Report on DFC's Financing Nuclear Energy-Related Projects Overseas

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Background

DFC is committed to supporting nuclear energy in line with its potential to advance several key objectives for the U.S. Government and Congress. These include the contributions nuclear energy can make to climate change mitigation by providing clean baseload power that supports low-carbon power systems. This is captured in U.S. support for the declaration to triple nuclear power by 2050. Nuclear energy can also support efforts to strengthen energy security and limit countries' exposure to the use of energy as a political tool by reducing their dependence on energy imports from malign actors like Russia. The United States also has an opportunity to leverage its technological leadership in a growing international nuclear energy industry to drive job creation and economic activity domestically.

Growing interest in nuclear energy has been matched by new developments in the sector in the past several years, including in the United States. This includes the commissioning in 2023 of the first new nuclear power plant in the United States in 30 years as well as efforts to extend the lifetime of some nuclear plants in other locations. U.S. companies have also been at the forefront of developing new technologies to create more flexibility and contribute to lower costs and quicker investment timelines in the form of small modular reactors (SMRs) and other advanced designs. Several of these technologies have initiated key licensing and regulatory processes in the United States and abroad. The U.S. Government has also engaged in intensive diplomacy to support nuclear energy investment around the world, including through several intergovernmental agreements (IGAs), technical assistance facilities such as the FIRST program and Project Phoenix, and high-level advocacy to prioritize and advance nuclear energy. These efforts are expected to contribute to more mature opportunities for agencies like DFC to invest in nuclear energy by building capacity and raising awareness of U.S. technologies.

Activity to Date

DFC changed its Environmental and Social Policies and Procedures (ESPP) in 2020 to enable the Corporation to invest in nuclear power projects following a voluntary 30-day public comment period during which the agency solicited feedback from key stakeholders including Congress, peer U.S. Government agencies, the private sector, and NGOs. DFC's predecessor agency (the Overseas Private Investment Corporation – OPIC) had been prohibited from supporting projects in the industry. Since this change, DFC has taken several steps to identify and advance opportunities to support nuclear energy. Key activities are summarized here.

Engaging with the Market

- **Generating credible new transaction leads overseas.** DFC is in early-stage project discussions with several nuclear energy project sponsors, which is a reflection of a concerted business development effort undertaken over the course of the last three years. Certain projects are promising, and as a result DFC has signed several letters of interest (LOIs) to express interest in considering applications for financing for those nuclear energy projects.
  - This includes three LOIs signed with nuclear technology developer NuScale Power for projects in South Africa, Indonesia, and Romania. The Romania LOI was later updated to include the project sponsor, RoPower, as DFC's potential counterpart and noted DFC's interest in reviewing applications for financing for this project.
  - DFC also signed an LOI with a Polish company, OSGE, for two SMR projects using GE/Hitachi technology, and is expressing interest in reviewing applications for financing for these projects in the future.
- **Coordinating with industry at home and abroad.** DFC participates regularly in meetings with industry groups and the private sector. These include industry briefings, such as the quarterly Civil Nuclear Trade Advisory Committee (CINTAC) meetings hosted by the International Trade Administration, and business development and public engagement activities at industry conferences such as the New Nuclear Capital Summit and Nuclear Energy Security Summit in November 2023, and the Three Seas Initiative Summit in September 2023.

Interagency and International Government Engagement

- DFC is closely engaged in U.S. interagency activities to coordinate on nuclear energy promotion efforts. This includes joining biweekly Team USA interagency meetings on civil nuclear energy, participating in monthly working group meetings on the Romania SMR project.
- DFC participates in interagency technical review processes to identify options to support nuclear energy investment in Poland under the auspices of the IGA signed between Poland and the United States in 2020.
- DFC regularly meets with foreign government counterparts from countries such as Romania, Poland, Slovakia, the Czech Republic, Bulgaria, and others to discuss opportunities for DFC support to nuclear energy projects.
- Recognizing the agency's limited experience with nuclear energy projects, DFC is working to create a mechanism to access technical expertise from the Department of Energy. DFC will leverage this expertise to support our investment teams in screening new project opportunities and establishing a more robust operational framework for assessment and due diligence of nuclear energy projects.

Strengthening Internal Capacity for Nuclear Energy Investment

- In January 2024, DFC initiated an organizational realignment that included the creation of the Office of Energy, which will combine staff covering DFC's different

investment products to focus on investments in the energy sector. The Office of Energy will include a point person for investment in nuclear energy. DFC also hired a policy officer focused on the energy sector to strengthen coordination with interagency and industry stakeholders.
- DFC has also undertaken an internal mapping exercise of the Corporation's investment products to identify which of our tools could be most useful for different projects or companies at different points in the lifecycle of nuclear investments. This has informed discussions with private sector stakeholders and foreign government stakeholders to better explain DFC's investment model and criteria and identify gaps and opportunities for collaboration in the future.

Near-Term Paths for Financing Nuclear Energy

DFC is committed to finding opportunities to invest in nuclear energy projects in the markets where it works. However, DFC's ability to provide financing for nuclear energy projects in the near-term faces several key challenges:

- DFC is tracking developments in the nuclear energy space closely as the Corporation seeks to identify mature projects that would match DFC's investment criteria. DFC has identified SMRs as stronger matches with its investment model due to their lower capital costs and more frequent inclusion of private sector companies and financing. As new technologies for civil nuclear energy, SMRs have not been deployed commercially to date and initial efforts to underwrite these projects will be complex. These technologies also lack full licensing and regulatory approvals in the United States and abroad. As these circumstances change, DFC will be in a better position to bring financing solutions such as loans or loan guaranties to bear on the sector, and DFC staff are watching progress closely.
- DFC has established an initial internal due diligence framework for nuclear energy projects. In doing so, DFC drew on established processes in peer U.S. Government agencies, including the Export-Import Bank, to build on existing expertise and knowledge within the government. However, DFC staff have limited expertise in underwriting and undertaking due diligence on nuclear energy projects, which present several unique characteristics related to financing, technical, and market factors, and environmental and social assessment. Further, due diligence of large investments with substantial environmental and social risks, legal and regulatory complexities, and commercial risks will require significant staff time and resources.
- DFC's opportunity to invest at earlier stages in the project lifecycle would require the use of its equity or technical assistance products, both of which are dependent on funds using annual appropriations, which are in limited supply. These funds are in high demand at DFC, and nuclear energy is in competition with all of DFC's other priorities, including many sectors and projects where there is a more direct

path to near-term impact and less risk associated with projects failing to proceed despite DFC's investment.

- Nuclear energy projects are among the most capital-intensive investments in any sector, with conventional nuclear projects in the tens of billions of dollars and SMRs slated to be multibillion-dollar investments. DFC may face questions about additionality in the context of existing project exposure limits (both statutory and linked to internal policies) where DFC's financing would represent a relatively small share of total investment costs. DFC's flexibility in deploying different investment tools could reduce concerns on this front. However, DFC's ability to support high-cost investments using technologies in early stages of deployment with long development timelines is also challenged by the Corporation's maximum contingent liability. Tying up billions of dollars in nuclear energy projects that exhibit higher risks compared with many other potential investments would reduce the availability of resources for other priorities.

DFC has identified the following factors as critical to its ability to support nuclear energy moving forward:

- As described above, additional effort is required to address broader constraints to nuclear energy investments including through demonstrated deployment of new technologies and more progress on regulatory and licensing processes in new countries. DFC is supportive of efforts by the U.S. Government to support domestic deployment of new technologies to further prove their commercial viability and to support foreign governments, regulatory institutions, and energy companies to prepare for nuclear energy deployment.
- DFC's ability to deploy its equity authority effectively is constrained by budgetary rules that require the Corporation to account for equity on a dollar-by-dollar basis. A congressional alter to the budgetary treatment of equity would allow DFC to deploy equity that could support nuclear energy, and other projects, at earlier stages without significantly reducing the availability of resources for other priorities.
- DFC recommends an increased emphasis on support and consideration for financial structuring at early stages of nuclear energy projects abroad. Companies and governments need to factor in clear strategies to finance their projects including by seeking private capital, clarifying market strategies, and securing complementary public support. These efforts would provide DFC with better opportunities to support projects that are aligned with its investment model and criteria while attracting new forms of capital to expand the sector.