



Xinyue Ma is the China Research and Project Leader for the Global China Initiative at the Boston University Global Development Policy Center. She received her Bachelor's degree in International Politics and History from Peking University, Beijing, and her M.A. in International Economics and Energy, Resources and Environment from Johns Hopkins University, School of Advanced International Studies (SAIS), with a specialization in Infrastructure Policy and Finance.

Outlier or New Normal? Trends in China's Global Energy Finance

XINYUE MA, CECILIA HAN SPRINGER AND HONEST SHAO

EXECUTIVE SUMMARY

In 2021, the China's Global Energy Finance Database, managed by the Boston University Global Development Policy Center, recorded no new energy development finance commitments from China to foreign governments through its two most active policy banks, the China Development Bank (CDB) and the Export-Import Bank of China (CHEXIM). This is the first year with no new reported energy commitments since the beginning of the 21st century.

It is a dramatic statistic but also not entirely surprising, given the persisting impacts of the COVID-19 pandemic, narrowing borrowing capacities in developing countries and the global trend towards phasing out coal. After having far exceeded energy sector lending by any other major development bank in previous years, Chinese overseas lending has likely dropped to a level comparable to other national development finance institutions (DFIs), following an overall decrease in Chinese development finance since 2017.

Even with the drop in finance in 2021, CDB and CHEXIM have issued a total of 331 loans to foreign governments and associated entities in the energy sector since 2000, totaling \$234.6 billion.

Since 2016, the policy banks have disbursed 92 loans worth \$75.1 billion to foreign governments and associated entities in the energy sector. This amounts to more energy sector loans provided to public entities than by any other lender in the world and far exceeds total energy sector lending by the World Bank over the same period. And while China's overseas energy sector development finance



Cecilia Han Springer is the Assistant Director, Global China Initiative at the Boston University Global Development Policy Center. Her interdisciplinary research focuses on the environmental impacts of China's overseas investment, policymaking processes within China and industrial decarbonization. Previously, she was a Post-doctoral Fellow at the Harvard Kennedy School. She earned a M.S. and Ph.D. from the Energy and Resources Group at the University of California, Berkeley and a B.S. in Environmental Science from Brown University.



Honest Shao is a Research Assistant with the Boston University Global Development Policy Center. He earned a Master's degree in Global Policy at Boston University.

has decreased year by year since 2017, on average, China's foreign direct investment (FDI) in the energy sector has remained relatively stable, and has gradually become China's dominant means of capital participation in the energy sector overseas.

With international stakeholders and policymakers in China calling for a shift towards greening the Belt and Road Initiative (BRI), the pressing question is: what is next for China's overseas energy finance? Is 2021 an outlier year marred by the pandemic and global financial instability, or is this the new normal? How will the much-anticipated green transition of China's overseas energy sector engagement be financed?

In this policy brief, we approach these questions by positioning the new situation in context, exploring the state of development finance in the energy sector in 2021. What do the demand and supply dynamics look like at this point in time? How have the pandemic-related financial constraints overshadowing many developing countries affected energy sector finance? How does China's energy development finance compare to FDI? Judging by the current policy environment, can a new wave of green energy finance from China be expected? Furthermore, what is needed to help China and the world's other development financiers meet the growing clean energy demand?

Given increasing focus on a green BRI, one thing is clear: if and when Chinese development finance for overseas energy activity increases again, it should be directed towards cleaner sources of energy to match the trends in FDI, policy announcements and global goals for mitigating climate change.

UPDATES TO THE CHINA'S GLOBAL ENERGY FINANCE DATABASE

The China's Global Energy Finance (CGEF) Database, compiled and updated annually by the Boston University Global Development Policy Center, is an interactive database that exhibits financing for global energy projects by China's two global policy banks—the China Development Bank (CDB) and the Export-Import Bank of China (CHEXIM).

Even with the drop in finance in 2021, CDB and CHEXIM have issued a total of 331 loans to foreign governments and associated entities in the energy sector since 2000, totaling \$234.6 billion.

Since 2016, the policy banks have disbursed 92 loans worth \$75.1 billion to foreign governments and associated entities in the energy sector. This amounts to more energy sector loans provided to public entities than by any other lender in the world and far exceeds total energy sector lending by the World Bank over the same period.

During this update, the CGEF Database cross-checked records of past projects with other available databases published by the Boston University Global Development Policy Center and those of peer institutions. All CGEF Database entries have been verified and updated against the most recent open-source information. To maintain a consistent scope with our China's Overseas Development Finance Database, the 2022 version of the CGEF Database only includes loans to overseas borrowers with public ownership. Entries beyond the scope of the CGEF Database have been removed, and entries that were missing have been added.



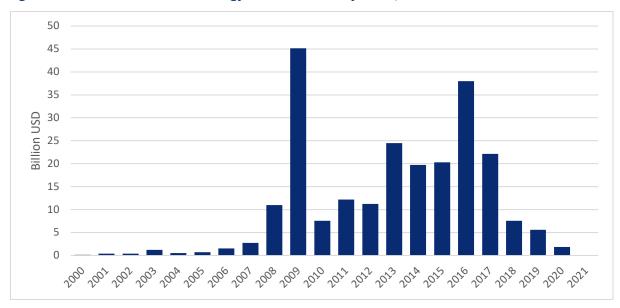


Figure 1: China's Annual Overseas Energy Finance from Policy Banks, 2000-2021

Source: China's Global Energy Finance (CGEF) Database, 2022. Boston University Global Development Policy Center.

GLOBAL ENERGY SECTOR DEVELOPMENT FINANCE IN 2021

Although development finance in general substantially increased in 2020 (especially in the health sector since the pandemic began), in 2021, most development finance institutions (DFIs) around the world decreased new commitments.¹ In the energy sector, as shown in Figure 2, all DFIs examined in this brief reduced their lending in 2021, except for the European Investment Bank (EIB). While China's two state-backed policy banks, CDB and CHEXIM, continued overseas lending in other sectors in 2021, no public-sector commitments were recorded in the energy sector.²

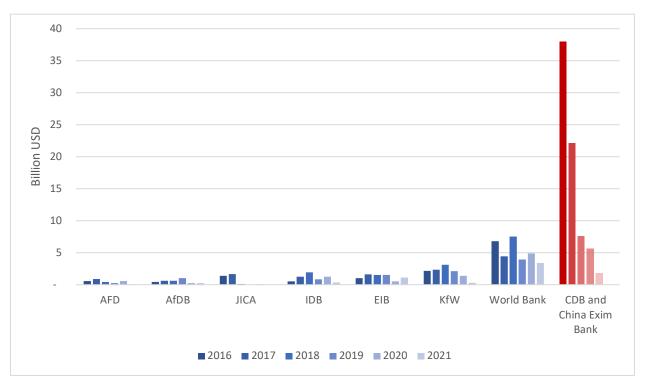
Taken together, energy finance committed by CDB and CHEXIM over the past six years still far exceeds the next biggest energy financier among DFIs – the World Bank. However, following an overall decrease in new loan commitments since a peak in 2016, Chinese overseas lending in the energy sector has likely dropped to a level relative to other national DFIs. As risks of debt distress remain high in many developing countries, new lending would apparently have been limited under the Group of 20's (G20) Debt Service Suspension Initiative (DSSI).³ International travel constraints have also limited international deal-making with Chinese banks. Meanwhile, China's central bank and regulatory authorities have also stepped up restrictions and risk management for the banks'

¹ According to official project databases of development finance institutions with downloadable updated project data files through 2021.

² It is worth noting that private sector lending did continue, though sparsely. For example, CHEXIM participated in a loan to a coal-fired power plant with CHEXIM participation in Bangladesh, May 2021. (Bangladesh Barisal project achieves financing closure, https://power.in-en.com/html/power-2387617.shtml). However, the borrower company does not have public shares of the Bangladesh government. CGEF only records loans towards borrowers with (any proportion of) public ownership of the recipient countries and hence excludes this project.

³ G20, 2020. Communique, G20 Finance Ministers and Central Bank Governors Meeting 15 April 2020 [Virtual]. https://www.worldbank.org/en/topic/debt/brief/covid-19-debt-service-suspension-initiative.

Figure 2: Energy Finance Commitments by Major Development Finance Institutions, 2016-20214



Source: Official project databases of each development finance institution (DFI); China's Global Energy Finance (CGEF) Database, 2022. Boston University Global Development Policy Center.

> overseas loan business. 5 Under these financial constraints, Chinese banks may go through a period of slower loan-making. If the looming debt crisis worsens in the short run, the much-anticipated green transition of China's overseas energy sector participation may be driven by other forms of engagement, such as FDI, contracting or technical assistance. Nevertheless, given China's continued emphasis on energy cooperation, especially green energy,6 it is not likely China will cease its leadership in global energy finance. Given their key roles in guiding and supporting China's foreign investment and international economic cooperation⁷, CDB and CHEXIM will remain leaders of China's overseas development engagement.

CDB, n.d., Business Overview | International Cooperation. http://www.cdb.com.cn/English/ywgl/xdyw/gjhzyw/; CHEXIM, n.d., About the Bank. http://english.eximbank.gov.cn/Profile/AboutTB/Introduction/.



⁴ 1) The graph only includes major DFIs with downloadable updated project data files until 2021 and is only intended to show the overall trend. Only finance for developing countries and regions is included, and grants are excluded when discernable. 2) The World Bank includes International Bank for Reconstruction and Development (IBRD) and International Development Association (IDA) commitments. 3) For multi-sector packages financed by the World Bank, the amount is weighted by the energy sector percentage according to the World Bank's project database. 4) The Chinese bank loans only include loans towards borrowers with any proportion of public ownership of the recipient countries. Note that the Chinese loan amount has been updated from the 2021 policy brief to reflect this scope criterium (see Appendix).

⁵ People's Bank of China & State Administration of Foreign Exchange, 2021. 关于《中国人民银行 国家外汇管理局关于银 行业金融机构境外贷款业务有关事宜的通知(征求意见稿)》公开征求意见的反馈. http://www.pbc.gov.cn/tiaofasi/ 144941/144979/3941928/4463678/index.html.

⁶ Ma, X., 2021. Turning Words into Action: A Post-COP26 View of China's Commitment to Quit Coal Overseas. GDP Center. https://www.bu.edu/gdp/2021/12/20/turning-words-into-action-a-post-cop26-view-of-chinas-commitment-to-quit-

CHINA'S OVERSEAS ENERGY INVESTMENT AND FINANCE IN 2021

Figure 3 below shows trends in China's overseas energy investment and development finance over the past six years. Even though China's annual energy sector FDI has also decreased in general in the past few years, on average, China's energy sector FDI has remained much more stable than development finance. If this trend continues, FDI may indeed become China's dominant means of capital participation in the energy sector overseas. Given this potential trend, in this section, we compare the performance of Chinese overseas energy sector development finance with FDI.



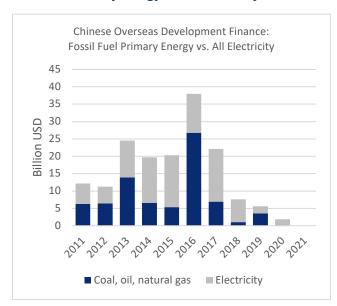
Figure 3: China's Overseas Energy Investment and Development Finance, 2016-2021

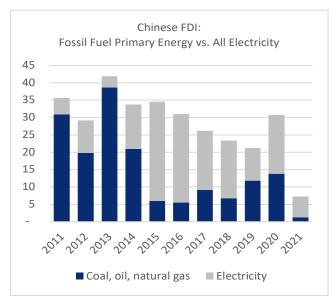
Source: Dealogic, 2021; fDi Intelligence, 2021; China's Global Energy Finance (CGEF) Database, 2022. Boston University Global Development Policy Center.

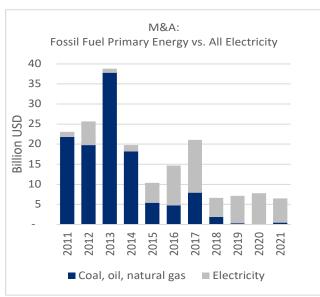
As tracked in the CGEF Database, CDB and CHEXIM have not financed new oil and gas projects since 2020. In FDI, total Chinese overseas investment in coal, oil and natural gas in the form of primary energy has decreased since 2015, making investment in the electricity sector a major target of Chinese energy sector FDI (as shown in Figure 4). This reduction has mainly been driven by significant decrease in cross-border Mergers and Acquisitions (M&A) in fossil fuels. The recent new investments in fossil fuels have mainly been in the form of greenfield investment. Closer examination shows recent investments have been more concentrated in mid- to downstream petrochemical product manufacturing and processing, rather than extraction.

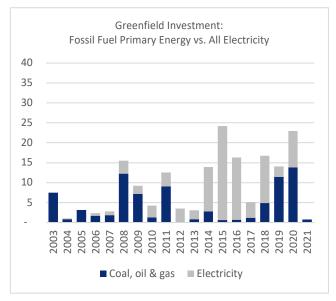
Since 2019, M&A has been the main source of Chinese FDI in the electricity sector. Additionally, the transmission and distribution sector has overtaken power generation among Chinese overseas M&A in the electricity sector during this period.

Figure 4: The Changing Structure of Chinese Overseas Development Finance and FDI in the Energy Sector: Fossil Fuel Primary Energy vs. All Electricity









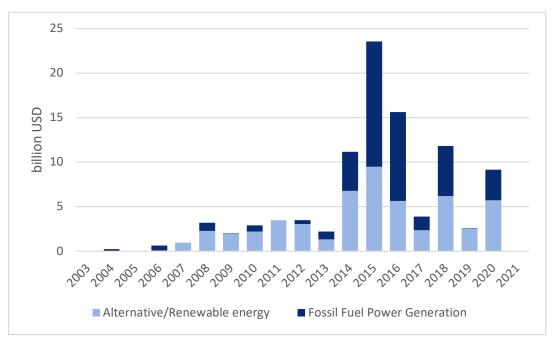
Source: China's Global Energy Finance (CGEF) Database, 2022. Boston University Global Development Policy Center; Dealogic, 2021; fDi Intelligence, 2021.

Among China's new greenfield FDI in the electricity sector, since 2014, greenfield FDI in alternative/renewable energy on average has nearly doubled the amount of annual investment in previous years. Fossil fuel power generation peaked in 2015, as shown in Figure 5. Given Chinese leader Xi Jinping's commitment to stop building new coal power projects overseas last September,8 investment in fossil fuel-based power generation will likely further decrease.

⁸ UN, 2021. China headed towards carbon neutrality by 2060; President Xi Jinping vows to halt new coal plants abroad. https://news.un.org/en/story/2021/09/1100642.



Figure 5: Chinese Greenfield FDI in Fossil Fuels vs. Alternative/Renewable Energy in the Electricity Sector



Source: fDi Intelligence, 2021.

A NEW NORMAL FOR CHINA'S GLOBAL ENERGY FINANCE?

As the world economy begins to recover from the impacts of COVID-19, fast-growing energy demand has been exerting pressure on the energy sector supply chain, causing disruptions in both resource commodity and electricity markets around the world. Under these circumstances, countries around the world have also been updating their Nationally Determined Contributions for mitigating climate change under the Paris Agreement, and major public and private investors and financiers have been making carbon transition commitments. Renewable energy is poised to take the lead in energy sector growth in the coming years. While the global increase in renewable energy generation reached the highest ever year-on-year increase of 6 percent, it still lagged the 9 percent increase in coal power generation in 2021.9 As the window to mitigate impacts of climate change quickly closes, effective policy support, including development finance, is urgently needed to accelerate renewable energy deployment.

Over the past decade, China's overseas development finance in developing countries has far exceeded traditional sources, providing key resources for cash-strapped countries to bridge the development gap, including in the energy sector. The demand for energy remains high, particularly shifting towards green energy, which is a relatively new area for Chinese development banks in the overseas energy sector.

While China's overseas development finance has been dominated by fossil fuels in previous years, in 2021, the Chinese government was unprecedentedly vocal about supporting clean energy in developing countries, exiting from coal and greening the Belt and Road Initiative (BRI). CDB and CHEXIM have played a role in supporting China's domestic green and equitable transition since

⁹ IEA, 2022. Electricity Market Report. https://iea.blob.core.windows.net/assets/d75d928b-9448-4c9b-b13d-6a92145af5 a3/ElectricityMarketReport_January2022.pdf.



China committed to reach domestic carbon neutrality by 2060.¹⁰ Meanwhile, the Chinese government has also issued multiple guidelines and initiatives on greening the BRI and energy cooperation.¹¹ CDB has signed Memorandums of Understanding with the Green Climate Fund.¹² Many of the new framework agreements CDB and CHEXIM have signed with multilateral and other national financial institutions also present opportunities for multilateral cooperation, best practice sharing and risk mitigation.¹³ The international development community should take advantage of this policy dynamic to engage with China, and scale up much-needed development finance for renewable energy, especially in developing countries.

The possibility remains for Chinese development finance to rebound in the coming years. Recent research indicates a significant relationship between Chinese outbound policy bank finance and international reserves, which have begun to rebound substantially amid record trade surpluses. If Given increasing focus on a green BRI, if and when Chinese development finance for overseas energy activity increases again, it should be directed towards investing in cleaner sources of energy to match trends in FDI, implementing policy announcements and creating global goals for mitigating climate change.

¹⁴ Dreher, Axel, Andreas Fuchs, Bradley Parks, Austin Strange and Michael J. Tierney. 2021. "Aid, China, and Growth: Evidence from a New Global Development Finance Dataset." American Economic Journal: Economic Policy 13:2, 135-174. https://www.doi.org/10.1257/pol.20180631.



¹⁰ CHEXIM, 2021. 能源电力保供 | 进出口银行在行动 (一) - (三) http://www.eximbank.gov.cn/info/jgdt/202112/t20211207_36157.html; http://www.eximbank.gov.cn/info/jgdt/202112/t20211207_36158.html; http://www.eximbank.gov.cn/info/jgdt/202112/t20211207_36160.html . CDB, 国开行成功发行首单"碳中和"专题绿色金融债券. http://www.cdb.com.cn/xwzx/khdt/202103/t20210318_8293.html.

¹¹ Ma, X. 2021. Turning Words into Action: A Post-COP26 View of China's Commitment to Quit Coal Overseas. https://www.bu.edu/gdp/2021/12/20/turning-words-into-action-a-post-cop26-view-of-chinas-commitment-to-quit-coal-overseas/.

¹² CDB, 2021. 开发银行与绿色气候基金签署合作备忘录. http://www.cdb.com.cn/xwzx/khdt/202110/t20211018_9197. html.

¹³ CHEXIM, 2021. 中国进出口银行与新开发银行签署合作谅解备忘录. http://www.eximbank.gov.cn/info/news/202105/t20210528_31354.html. CDB, 2021. 国家开发银行与韩国产业银行签署全面战略合作协议. http://www.cdb.com.cn/xwzx/khdt/202111/t20211129_9362.html.

APPENDIX

This version of the CGEF Database cross-checked records of past projects with other available databases published by the Boston University Global Development Policy Center and those of peer institutions, including the most recent update of the Boston University Global Development Policy Center Chinese Loans to Africa Database, the Boston University Global Development Policy Center China's Overseas Development Finance Database and AidData's Global Chinese Development Finance Dataset, Version 2.0. All CGEF Database entries have been verified and updated against the most recent open-source information. To maintain a consistent scope with our China's Overseas Development Finance Database, the 2022 version of the CGEF Database only includes loans to overseas borrowers with public ownership. Entries beyond the scope of the CGEF Database, including those loans that have not been disbursed and canceled, projects that the banks of concern have withdrawn from, projects without host country public sector borrowers, have been removed; and entries that were missing have been added. The list of BRI countries was also updated according to the list of countries that have signed cooperation documents with China as of Feb 7, 2022. These updates will also be reflected in the upcoming versions of other databases managed and maintained by the Boston University Global Development Policy Center. The list of projects that have been added, removed or edited in this round of verification is recorded below.

Added Entries:

Date	Country	Energy Source	Energy Subsector	Lender	Amount (\$m)	Description
2013	Angola	Unspecified	Transmission and Distribution	Ex-Im Bank	1003	Soyo-Kapary Transmission; 400kV and Transformation Project
2016	Angola	Unspecified	Transmission and Distribution	CDB	47.3	Huambo City; Electrification of 17,500 Home Connections
2016	Angola	Unspecified	Transmission and Distribution	CDB	47.3	Lubango/Matla; Huila; Electrification of 12,500 Home Connections
2016	Angola	Unspecified	Transmission and Distribution	CDB	340	Lauca-Huambo Electricity System Construction
2016	Angola	Oil	Exploration and Extraction	CDB	10000	Sonangol recapitalization
2016	Angola	Unspecified	Transmission and Distribution	CDB	47.3	Cabinda City, Electrification of 20,000 Household Connections
2006	Tajikistan	Unspecified	Transmission and Distribution	Ex-Im Bank	55.2	Construction of 220 kV transmission line Lolazor-Khatlon
2006	Tajikistan	Unspecified	Transmission and Distribution	Ex-Im Bank	267.2	Construction of 500 kV transmission line South-North
2011	Tajikistan	Unspecified	Transmission and Distribution	Ex-Im Bank	26.5	Establishment of unified power system
2007	Tajikistan	Unspecified	Transmission and Distribution	Ex-Im Bank	51	Additional works for Lolazor-Khatlon and South-North TL
2013	Tajikistan	Unspecified	Transmission and Distribution	Ex-Im Bank	35	Rehabilitation of 500 kV Regar substation
2009	Kenya	Unspecified	Transmission and Distribution	Ex-Im Bank	93.3	Kenyan Urban Power Grid Kamburu-Meru (Phase II); Transmission Line with Two Substa- tions (220kV); Transmission Line with One Substation (132kV)



Date	Country	Energy Source	Energy Subsector	Lender	Amount (\$m)	Description
2014	Kenya	Unspecified	Transmission and Distribution	Ex-Im Bank	130	Nairobi 132KV and 66KV Network Upgrade and Reinforcement
2013	Angola	Oil	Exploration and Extraction	CDB	2500	loan to Sonangol
2010	Ecuador	Oil	Exploration and Extraction	CDB	200	Petroecuador support
2016	Ethiopia	Unspecified	Transmission and Distribution	Ex-Im Bank	165	Addis Ababa Power Network Rehabilitation and Upgrading Project
2011	Kazakhstan	Gas/LNG	Exploration and Extraction	CDB	1800	Beineu-Bozoi-Shymkent Gas Pipeline (Construction)
2012	Kyrgyzstan	Unspecified	Multipurpose	Ex-Im Bank	390	Datka-Kemin (Chuy) Transmission Line and powerplant
2015	Laos	Hydropower	Power Generation	Ex-Im Bank	1290	Nam Ngum 3 Hydropower Station
2012	Republic of Congo	Hydropower	Transmission and Distribution	Ex-Im Bank	37.4	Liouesso Hydropower Project Transmission Line to Ouesso
2013	Russia	Oil	Exploration and Extraction	CDB	2,000	Rosneft Oil
2010	Senegal	Unspecified	Transmission and Distribution	Ex-Im Bank	77.7	Dakar Loop Power Transmission (Phase II)
2010	Sudan	Unspecified	Transmission and Distribution	Ex-Im Bank	233	South Kordofan Transmission Lines
2010	Tajikistan	Unspecified	Transmission and Distribution	Ex-Im Bank	35.1	Construction of 220 kV transmission line Khujand-Ayni
2007	Vietnam	Coal	Power Generation	Ex-Im Bank	355	Quang Ninh-2
2019	Brazil	Oil	Exploration and Extraction	Ex-Im Bank	714	Petrobras Line of Credit
2016	Equa. Guinea	Unspecified	Transmission and Distribution	Ex-Im Bank	290	Bata City Power Grid; Phase II
2019	Equa. Guinea	Unspecified	Transmission and Distribution	Ex-Im Bank	12	Akpoga Electricity Infrastructure
2019	Equa. Guinea	Unspecified	Transmission and Distribution	Ex-Im Bank	83	High Voltage Electricity Network Extension and Maintenance
2018	Mongolia	Coal	Power Generation	Ex-Im Bank	51.8	Expansion Project of Erdenet Thermal Power Station
2019	Kenya	Unspecified	Transmission and Distribution	Ex-Im Bank	97	Konza-Isinya Transmission Line Project
2007	Kenya	Unspecified	Transmission and Distribution	Ex-Im Bank	5.34184812	Procurement of Power Lines Material Loan 1
2016	Maldives	Oil	Power Generation	Ex-Im Bank	75.395226	STELCO 5th Power Development
2014	Togo	Solar	Power Generation	Ex-Im Bank	55	Public Solar Street Light/Lamp Project, Phase 1 & 2
2017	Kenya	Unspecified	Transmission and Distribution	Ex-Im Bank	89.7543281	Garsen - Hola - Garrissa Transmission Line
2009	Venezuela	Oil	Exploration and Extraction	Ex-Im Bank	4000	Loan for oil



Date	Country	Energy Source	Energy Subsector	Lender	Amount (\$m)	Description
2008	Indonesia	Coal	Power Generation	Ex-Im Bank	85	Jabar Indramayu Power Plant (syndicated with BOC, ICBC, CCB, and China Citic)
2009	Indonesia	Coal	Power Generation	Ex-Im Bank	32	Additional Loan for Labuan Angin Coal Fired Power Plant
2013	Indonesia	Hydropower	Power Generation	Ex-Im Bank	117	Jatigede Dam Phase II
2016	Indonesia	Coal	Power Generation	Ex-Im Bank	98	Cilacap Sumber Power Station (Phase II), syndicated with BOC and Bank Rakyat Indonesia
2005	Angola	Unspecified	Transmission and Distribution	Ex-Im Bank	13.1347539	Quifangondo-Mabubas Transmission Line, 60Kv
2005	Angola	Unspecified	Transmission and Distribution	Ex-Im Bank	25.4237625	Capanda-Lucala-Ndalatando Transmission Line, 220kV
2004	Angola	Unspecified	Transmission and Distribution	Ex-Im Bank	40.0583835	Luanda Electrical Network Rehabilitation and Expansion, Phase II
2005	Angola	Unspecified	Transmission and Distribution	Ex-Im Bank	34.5309309	Cambambe-Luanda Transmission Line, 220kV
2005	Angola	Unspecified	Transmission and Distribution	Ex-Im Bank	26.5649238	Luanda-Sul Substation, 220kV
2008	Angola	Unspecified	Transmission and Distribution	Ex-Im Bank	25.6376925	Luanda MT and BT Networks, Phase 3
2008	Angola	Unspecified	Transmission and Distribution	Ex-Im Bank	26.866206	Malange MT and BT Networks, Phase 2
2008	Angola	Unspecified	Transmission and Distribution	Ex-Im Bank	45.6275124	Lundas Sul and Norte, Dundo, and Saurimo, MT and BT Networks
2007	Angola	Unspecified	Transmission and Distribution	Ex-Im Bank	50	Benguela, Huambo and Bié MT and BT Networks, Part 1 - Huambo
2008	Angola	Unspecified	Transmission and Distribution	Ex-Im Bank	129.6	Luanda MT and BT Networks, Phase 4
2007	Angola	Unspecified	Transmission and Distribution	Ex-Im Bank	22.5	Lubando MT and BT Networks, Phase 2
2007	Angola	Unspecified	Transmission and Distribution	Ex-Im Bank	9.593874	Implementing 26,000 New Household Connections and Expansion of the SE-PS05 Catete Road (Rehabilitation and Expansion of LDA's Electrical Network-PhaseII)
2007	Angola	Unspecified	Transmission and Distribution	Ex-Im Bank	20.613159	Expansion of the Network of MT, BT and IP in the city of Caxito and Rehabilitation of the Quifangondo-Cazenga Line (Reconstruction of 60Kv Transmission Line and QuifMabubas Substation)
2011	Angola	Unspecified	Transmission and Distribution	Ex-Im Bank	21.134944	MT/BT Networks - Lunda-Norte and Lunda-Sul Rehabilitation and Expansion, Phase 1
2011	Angola	Unspecified	Transmission and Distribution	Ex-Im Bank	3.61407542	MT and BT Networks of Mbanza Congo Rehabilitation
2014	Angola	Hydropower	Multipurpose	Ex-Im Bank	112	Hydropower in Chiumbe-dala 12.42MW and 99.6km Transmission Line in Luena 110kV
2002	Angola	Unspecified	Transmission and Distribution	Ex-Im Bank	15	Luanda Electrical Network Expansion, Phase I



Date	Country	Energy Source	Energy Subsector	Lender	Amount (\$m)	Description
2002	Angola	Unspecified	Transmission and Distribution	Ex-Im Bank	15	Lubango Electricity Network
2002	Angola	Unspecified	Transmission and Distribution	Ex-Im Bank	25	Namibe and Tombowa Electricity
2016	Angola	Unspecified	Transmission and Distribution	Ex-Im Bank	70.9	Benguela City, Electrification Contract and 22,800 Household Connections
2016	DRC	Solar	Power Generation	Ex-Im Bank	10	Study, Supply and Installation Contract for 5,000 Solar Poles and Accessories
2018	DRC	Unspecified	Transmission and Distribution	Ex-Im Bank	299	220 KV substation in Kinsuka and Associated Distribution Networks
2015	Cameroon	Solar	Power Generation	Ex-Im Bank	90.1	Photovoltaic System, Electrification of 350 Communities - Phase I (166 Communities)
2017	Kenya	Unspecified	Transmission and Distribution	Ex-Im Bank	127.9	Nairobi City Center E.H.V and 66 KV Network Upgrade and Reinforecement Projec
2002	Sudan	Unspecified	Transmission and Distribution	Ex-Im Bank	38.6	Khartoum State Electricity - equipment and spare parts
2003	Sudan	Unspecified	Power Generation	Ex-Im Bank	12.1	Khartoum State Electricity
2005	Sudan	Solar	Power Generation	Ex-Im Bank	5.8	Electric generators (CNEEN Co.)
2006	Sudan	Unspecified	Transmission and Distribution	Ex-Im Bank	4.6	Solar Energy Project in Northern Kordofan (phase I)
2005	Sudan	Hydropower	Power Generation	Ex-Im Bank	175	North Khartoum Power Station/Martyr Dr. Mahmoud Sharif Bbhari phase III/Unit D power plant expansion
2003	Sudan	Hydropower	Power Generation	Ex-Im Bank	381	Merowe Hydropower Project transmission lines and substations
2012	Ghana	Unspecified	Transmission and Distribution	Ex-Im Bank	75.3	Bui Hydropower Project 400MW Additional Finance Loan 1(Total 749.6mn)
2012	Ghana	Hydropower	Power Generation	Ex-Im Bank	76.2	Bui Hydropower Project 400 MW Additional Finance Loan 2 (Total 749.6mn)
2007	Senegal	Unspecified	Exploration and Extraction	Ex-Im Bank	50.75	28km Dakar Loop Power Transmission Projects, 4x90kV (360kV), Phase I
2011	Angola	Oil	Exploration and Extraction	Ex-Im Bank	2000	Sonangol Development
2006	Kenya	Unspecified	Transmission and Distribution	Ex-Im Bank	20.6	Kenyan Urban Power Grid Phase I - Chemositsit-Kisii-Meru, 2x132kV Substations, 183 km 132kV & 76km 33kV Power Transmission Lines
2017	Kenya	Unspecified	Transmission and Distribution	Ex-Im Bank	90.286	Kamburu - Embu - Kibirigwi - Thika 220 KV Transmission Line & 220/132 Kv Substation & 132/66 kv Substation at Uplands
2010	Belarus	Gas/LNG	Power Generation	Ex-Im Bank	312.8	400MW Lukoml Power Plant
2008	Kazakhstan	Gas/LNG	Exploration and Extraction	CDB	7500	Turkmenistan-China Gas Pipeline Lines A,B (Kazakhstan portion)
2012	Kazakhstan	Gas/LNG	Exploration and Extraction	CDB	4700	Turkmenistan-China Gas Pipeline Line C (Kazakhstan portion, with BOC)



Date	Country	Energy Source	Energy Subsector	Lender	Amount (\$m)	Description
2012	Kazakhstan	Oil	Exploration and Extraction	Ex-Im Bank	199.5	On-lending for KazMunayGas Atyrau Refinery, Advanced Oil Refining Complex
2015	Kazakhstan	Gas/LNG	Exploration and Extraction	CDB	350	Beineu-Bozoi-Shymkent Gas Pipeline, Phase II
2017	Kazakhstan	Oil	Exploration and Extraction	CDB	607	On-lending for Shymkent Oil Refinery Reconstruction and Modernization, Phase II
2011	Kyrgyzstan	Unspecified	Transmission and Distribution	Ex-Im Bank	208	Southern Power Grid Reconstruction Project
2008	Laos	Unspecified	Transmission and Distribution	Ex-Im Bank	65	230kV Hin Heup—Naxaythong Transmission Line and Substation Project
2009	Laos	Hydropower	Power Generation	Ex-Im Bank	206	Houay Lamphan Gnai Hydropower Plant, Sekong
2009	Laos	Unspecified	Transmission and Distribution	Ex-Im Bank	120	230kV Hin Heup-Luangprabang 2 Power Transmission Line Project
2010	Laos	Unspecified	Transmission and Distribution	Ex-Im Bank	39.1	Northern Province Rural Electrification Project
2017	Laos	Hydropower	Power Generation	Ex-Im Bank	217.26	Nam Chiane Hydro Power Station
2017	Laos	Unspecified	Transmission and Distribution	Ex-Im Bank	321	Banha-Sekong Power Transmission Project
2013	Mongolia	Coal	Power Generation	CDB	75.9	Amgalan Thermal Plant
2009	Myanmar	Gas/LNG	Exploration and Extraction	CDB	257.8	Yadana-Yangon Natural Gas Pipeline
2007	Myanmar	Oil	Exploration and Extraction	Ex-Im Bank	80.51	Four Drilling Rigs and Oil Field Equipment and Materials Project
2009	Myanmar	Gas/LNG	Multipurpose	CDB	599	Offshore Natural Gas Development and Pipeline Project /Onshore Natural Gas Pipeline Project
2011	Pakistan	Gas/LNG	Power Generation	Ex-Im Bank	154.7	Guddu Combined Cycle Power Plant (syndicated with HSBC and HSBC Bank Middle East Ltd)
2009	Russia	Gas/LNG	Exploration and Extraction	Ex-Im Bank	300	Drilling Equipment
2011	Serbia	Coal	Power Generation	Ex-Im Bank	293	Kostolac B Power Plant, Phase 1
2010	Sri Lanka	Unspecified	Transmission and Distribution	Ex-Im Bank	31.6	Northern Province Power Sector Development Programme
2012	Sri Lanka	Unspecified	Transmission and Distribution	Ex-Im Bank	32.4	Lighting Sri Lanka Eastern Province Project
2009	Syria	Oil	Exploration and Extraction	Ex-Im Bank	36.6	Oil Drilling Rigs Acquisition
2009	Turkmenistan	Oil	Exploration and Extraction	Ex-Im Bank	58.55	Oil and Gas Equipment Acquisition for Turkmenneft
2011	Turkmenistan	OII	Exploration and Extraction	Ex-Im Bank	30.9	Oil, Gas, and Pipeline Equipment Acquisition for Turkmenneft



Date	Country	Energy Source	Energy Subsector	Lender	Amount (\$m)	Description
2013	Uzbekistan	Gas/LNG	Exploration and Extraction	Ex-Im Bank	73.6	Gas Network Modernization Project
2013	Uzbekistan	Gas/LNG	Exploration and Extraction	CDB	250	Ustyurt Gas Chemical Complex, with ADB, Korea Ex-Im, ING, Credit Suisse, others
2014	Uzbekistan	Gas/LNG	Exploration and Extraction	CDB	85	Mubarek Gas Chemical Complex
2017	Uzbekistan	Coal	Exploration and Extraction	Ex-Im Bank	89.5	Modernizing Baisun and Shargun coal deposits
2010	Uzbekistan	Coal	Power Generation	Ex-Im Bank	273	Conversion of Units 1, 2, 3, 4, 5 of Novo-Angren TPP to the all-year coal firing (phase 1)
2014	Venezuela	Oil	Exploration and Extraction	CDB	1500	Working Capital
2012	Venezuela	Oil	Exploration and Extraction	CDB	500	Purchase of petroleum related goods and services
2008	Antigua and Barbuda	Oil	Power Generation	Ex-Im Bank	43.7	Wadidli Power Plant
2013	Russia	Coal	Power Generation	CDB	400	On-lending for Ekibastuz GRES-2 Power Plant, 630 MW Third Unit, in Kazakhstan

Removed Entries:

Date	Country	Energy Source	Energy Subsector	Lender	Amount (\$m)	Description
2002	Ethiopia	Hydropower	Power Generation	Ex-Im Bank	50	Tekeze Dam
2002	Morocco	Hydropower	Power Generation	Ex-Im Bank	6.03	Three Dams (Ifrane, Chefchaouen, Al-Hoceima)
2003	Republic of Congo	Hydropower	Power Generation	Ex-Im Bank	238	Imboulou Dam
2004	Cambodia	Hydropower	Power Generation	Ex-Im Bank	201.6	Kamchay Hydroelectric Power Plant
2008	Cambodia	Hydropower	Power Generation	Ex-Im Bank	47.1	Kirirom III Hydropower Plant
2009	Ethiopia	Hydropower	Power Generation	Ex-Im Bank	2269.5	Gibe IV and Halele Werabesa Dam
2009	Ethiopia	Hydropower	Power Generation	Ex-Im Bank	555	Chemoga-Yeda hydropower plant
2010	Cambodia	Hydropower	Power Generation	Ex-Im Bank	540	Stung Tatay Hydropower Project Main Project
2010	India	Coal	Power Generation	CDB	200	Lanco Amarkantak Thermal Power Project 3&4
2010	India	Coal	Power Generation	CDB-Ex-Im Cofinancing	188	CLP Jhajjar Power Plant
2010	India	Coal	Power Generation	CDB-Ex-Im Cofinancing	1100	Sasan UMPP, with Sinosure
2010	India	Coal	Power Generation	CDB-Ex-Im Cofinancing	5450	Boiler, Generator and Turbine Procurement from Shanghai Electric Group
2010	Italy	Solar	Power Generation	CDB	730.06	Various GSF Solar Parks

Date	Country	Energy Source	Energy Subsector	Lender	Amount (\$m)	Description
2010	Philippines	Coal	Power Generation	CDB	493	GNPower Mariveles Coal-Fired Plant with Sinosure
2011	Bulgaria	Solar	Power Generation	CDB	248.1	Hareon Pobeda & Cherganovo & Karlovo & Kolarovo Solar Plants
2011	Central African Republic	Hydropower	Power Generation	Ex-Im Bank	30	Boali 3 Hydropower Project
2011	Laos	Hydropower	Power Generation	CDB	770	Nam Ou hydropower project phase 2 (Nam Ou 1, 3, 4, 7)
2012	Bosnia & Herzegovina	Coal	Power Generation	CDB	453.005	Stanari Power Plant
2012	Chile	Solar	Power Generation	CDB	900	300MW Photovoltaic Solar Station
2012	Indonesia	Coal	Power Generation	CDB	426	Celukan Bawang 1
2013	Cambodia	Hydropower	Power Generation	Ex-Im Bank	412	Lower Stung Russey Chrum/Orussei Hydro- power Project
2013	Cambodia	Oil	Exploration and Extraction	Ex-Im Bank	1670	Unspecified Oil Refinery
2013	India	Coal	Power Generation	CDB	166.67	Tiroda Thermal Power Project with ICBC
2013	Indonesia	Coal	Power Generation	CDB	700	Cilacap Sumber Power Station with BOC and Bank Rakyat Indonesia
2013	Indonesia	Coal	Power Generation	CDB	318	Sumsel (SS-5) Power Station
2013	Mali	Hydropower	Power Generation	Ex-Im Bank	415	Gouina Hydropower Project
2013	Nigeria	Unspecified	Transmission and Distribution	Ex-Im Bank	500	Transmission Capacity Upgrade (2 billion from AfDB, WB, the French Development Bank and CHEXIM)
2013	Romania	Solar	Power Generation	CDB	83	82 MW Solar Park in Romania
2013	South Sudan	Hydropower	Power Generation	Ex-Im Bank	27	Kinyeti Hydropower project
2014	Ethiopia	Hydropower	Power Generation	Ex-Im Bank	466.4	Geba Hydropower Station
2014	Mali	Hydropower	Power Generation	Ex-Im Bank	99	Taoussa Hydropower Plant
2014	Nepal	Hydropower	Power Generation	Ex-Im Bank	165.9	50-MW Upper Marsyandgi hydroelectric plant
2014	Vietnam	Coal	Power Generation	CDB	645	Thang Long Power Plant (600MW)
2015	Benin, Togo	Hydropower	Power Generation	Ex-Im Bank	550	Adjarala Hydroelectric Project
2011	Brazil	Wind	Power Generation	CDB	55	34MW wind farm project in Sergipe state
2015	Indonesia	Coal	Power Generation	CDB	500	Jambi DSS Power Station
2015	Indonesia	Coal	Power Generation	CDB	150	Kendari-3 Power Station (100MW)
2015	Pakistan	Coal	Power Generation	Ex-Im Bank	1563.75	Pakistan Port Qasim Power Project with Individual Companies
2015	Pakistan	Wind	Power Generation	CDB	250	Thatta (Jhimpir) UEP 100MW Wind Farm
2015	Pakistan	Gas/LNG	Transmission and Distribution	Ex-Im Bank	2706	Gwadar-Nawabshah LNG terminal and pipeline project
2016	Indonesia	Coal	Power Generation	Ex-Im Bank	270	Bengkulu Power Station



Date	Country	Energy Source	Energy Subsector	Lender	Amount (\$m)	Description
2016	Russia	Gas/LNG	Transmission and Distribution	CDB	2500	Europe - China International Transport Route; Various Energy Cooperation
2016	Serbia	Gas/LNG	Power Generation	CDB	255.3512745	Loznica Thermal Power Station
2016	Venezuela	Oil	Multipurpose	CDB	2200	New Dehydration and Desalination Plant; expansion of Jose Processing Plant in Anzoategui
2017	Cuba	Solar	Power Generation	Ex-Im Bank	60	50 MW Solar Park
2017	Jordan	Oil	Power Generation	Ex-Im Bank	150	Oil Shale-Fired Plant with the Government of Jordan, NEPCO, GPEC, Sinosure, China Con- struction Bank
2017	Kenya	Unspecified	Transmission and Distribution	Ex-Im Bank	131	285km/220KV Electricity Transmission Line and Three Converting Stations
2017	Nigeria	Hydropower	Power Generation	Ex-Im Bank	4930	Mambilla Hydroelectric Plant Co-financed with the Government of Nigeria
2017	Pakistan	Wind	Power Generation	CDB	224	Three Gorges Second and Third Wind Farm
2017	Pakistan	Hydropower	Power Generation	CDB-Ex-Im Cofinancing	1258.608	Karot Run-of-River Hydropower Project with Silk Road Fund and IFC
2017	Pakistan	Coal	Power Generation	CDB	497.7	ThalNova 330MW Power Project with Bank of China, China Credit Insurance Agency and Habib Bank Limited
2017	Peru	Hydropower	Power Generation	CDB	365	San Gaban III
2017	Russia	Gas/LNG	Exploration and Extraction	CDB	1200	Arctic LNG 2
2017	Vietnam	Coal	Power Generation	Ex-Im Bank	1800	Duyen Hai 2 Thermal Power Plant
2018	Cote d'Ivoire	Unspecified	Transmission and Distribution	Ex-Im Bank	824	Development and Rehabilitation of the Electricity Network of Côte d'Ivoire (Proderci) \$824m for energy grid rehabilitation project
2018	Nigeria	Gas/LNG	Exploration and Extraction	Ex-Im Bank	500	Modular Refinery Flare Gas Recovery Programme
2018	Pakistan	Coal	Power Generation	CDB	497.7	330MW mine-mouth lignite-fired power plant with Habib Bank Limited, and Fauji Fertiliser Company (FFC), along with other equity partners including Hub Power Company (Hubco)
2019	Guinea	Hydropower	Multipurpose	Ex-Im Bank	812	294 MW Koukoutamba hydro project
2019	Nigeria	Hydropower	Power Generation	Ex-Im Bank	1000	Gurara hydropower project
2019	Vietnam	Coal	Power Generation	CDB-Ex-Im Cofinancing	1790	Nam Dinh 1 (1200 MW)
2020	Nigeria	Gas/LNG	Transmission and Distribution	Ex-Im Bank	2500	Ajaokuta, Kaduna, Kano (AKK) gas pipelibe project
2020	Pakistan	Coal	Power Generation	CDB	260	Thar Block-2 TEL 1x330MW Power Station Phase II Project with consortium led by China Minsheng Bank



Past Entries with Specific Information Adjusted or Corrected (Yellow Cells are Corrected):

Date	Country	Energy- Source	EnergySubSector	Lender	Amount (\$m)	Description
2001	Iran	Hydropower	Power Generation	Ex-Im Bank	121.55	Taleghan Dam
2001	Pakistan	Hydropower	Power Generation	Ex-Im Bank	108.8	Jinnah Hydropower Station (delayed until 2006)
2002	Nigeria	Gas/LNG	Power Generation	Ex-Im Bank	114.9	Omotosho Power Plant I
2002	Nigeria	Gas/LNG	Power Generation	Ex-Im Bank	114.9	Papalanto Gas-Fired Power Station Phase I
2005	Sudan	Oil	Power Generation	Ex-Im Bank	175	Khartoum North Thermal Power Station
2007	Ethiopia	Hydropower	Power Generation	Ex-Im Bank	116.3	Finchaa-Amerti-Neshe Dam
2004	Laos	Hydropower	Power Generation	Ex-Im Bank	50.4	Nam Mang-3 Dam
2009	Equa. Guinea	Gas/LNG	Power Generation	Ex-Im Bank	149	Expansion of Malabo Gas-Power plant
2008	Kazakhstan	Hydropower	Power Generation	CDB	200	Moinak Hydroelectric Power Plant
2010	Kenya	Geothermal	Exploration and Extraction	Ex-Im Bank	97	Olkaria IV Geothermal 140MW
2011	DRC	Hydropower	Power Generation	Ex-Im Bank	509.43	Busanga Hydropower
2011	DRC	Hydropower	Power Generation	Ex-Im Bank	367.5	Zongo II Hydropower Station
2007	Indonesia	Hydropower	Power Generation	Ex-Im Bank	215.6	Jatigede Dam Phase I
2008	Belarus	Gas/LNG	Power Generation	CDB	382	Revamping Minsk CHP Plant No. 5
2007	Brazil	Coal	Power Generation	CDB	281	Presidente Médici Candiota Power Station (Third Expansion)
2011	Gabon	Unspecified	Transmission and Distribution	Ex-Im Bank	130	Gabon Libreville Electric Network Renovation Project
2008	Kazakhstan	Gas/LNG	Multipurpose	Ex-Im Bank	1130	Atyrau Petrochemical Complex
2007	Vietnam	Coal	Power Generation	Ex-Im Bank	3.4	Hai Phong Thermal Power Plant Phase 2
2012	Tanzania	Gas/LNG	Transmission and Distribution	Ex-Im Bank	1195	Mtwara-Dar es Salaam Natural Gas Pipeline
2008	Indonesia	Coal	Power Generation	Ex-Im Bank	284	Suralaya Unit 8 Power Plant
2009	Indonesia	Coal	Power Generation	Ex-Im Bank	482	Pelabuhan Ratu Power Station
2009	Indonesia	Coal	Power Generation	Ex-Im Bank	124	PLTU Nanggroe Aceh Darussalam (NAD) - Meulaboh Power Plant
2010	Myanmar	Gas/LNG	Transmission and Distribution	CDB	1105	Sino-Myanmar Pipeline (RMB denominated)
2013	Mauritania	Hydropower	Power Generation	Ex-Im Bank	138	Gouina Hydropower Project
2013	Senegal	Hydropower	Power Generation	Ex-Im Bank	146	Gouina Hydropower Project
2010	Belarus	Gas/LNG	Power Generation	Ex-Im Bank	321.3	Berezov Combined Cycle Power Plant
2015	Uganda	Hydropower	Power Generation	Ex-Im Bank	1435	Karuma Hydroelectric Power Station
2010	Belarus	Hydropower	Power Generation	CDB	186	Vitebsk Hydropower Plant
2013	Togo	Unspecified	Transmission and Distribution	Ex-Im Bank	25	Sokode Electric Transformer Station



Date	Country	Energy- Source	EnergySubSector	Lender	Amount (\$m)	Description
2011	Ecuador	Oil	Power Generation	CDB	600	Oil-Related
2015	Eritrea	Oil	Power Generation	Ex-Im Bank	98.6	Hirgigo thermal power plant upgrade
2016	Ethiopia	Hydropower	Transmission and Distribution	Ex-Im Bank	249	Transmission Project of Genale Dawa III-Yirgalem II-Wolayita Sodo II-Hawassa II
2017	Zambia	Hydropower	Power Generation	Ex-Im Bank	1530	Kafue Gorge Lower Hydro-Power Project with ICBC
2016	Djibouti	Unspecified	Transmission and Distribution	Ex-Im Bank	20	Addis-Djibouti Railway Nagad-HollHoll-AliSa- bieh Power Supply
2017	Ethiopia	Unspecified	Transmission and Distribution	Ex-Im Bank	89.8	Power supply stations for Woldiya & Combolcha Industrial Parks - northern Ethiopia
2012	Indonesia	Coal	Power Generation	Ex-Im Bank	133	Parit Baru Power Station
2010	Pakistan	Nuclear	Power Generation	Ex-Im Bank	1570	Chashma Power Station Unit 3 and 4
2013	Turkmenistan	Gas/LNG	Exploration and Extraction	CDB	4100	loujno-Elotenshoie Gas Field (Extension of the 2009 Loan)
2013	Uzbekistan	Gas/LNG	Transmission and Distribution	CDB	2200	Central Asia-China Gas Pipeline Route C Co- Financed with CNPC
2011	Vietnam	Coal	Power Generation	Ex-Im Bank	1028.993	Duyen Hai 1 (with Société Générale, BNP Paribas, Bank of China, and Industrial and Commercial Bank of China)
2011	Vietnam	Coal	Power Generation	CDB	673	Vung Ang 1 Power Station
2016	Angola	Unspecified	Transmission and Distribution	CDB	452	electrification and household connections in Luanda
2017	Cameroon	Hydropower	Power Generation	Ex-Im Bank	142	Memvélé Dam Additional Fund (Drain)
2017	Egypt	Unspecified	Transmission and Distribution	CDB-Ex-Im Cofinancing	690	Egyptian Unified Power Grid (transmission stations, cable, transmitter)
2016	Kenya	Solar	Power Generation	Ex-Im Bank	135.7	Garissa-based 55MW solar farm
2012	Ukraine	Coal	Energy Efficiency	CDB	300	Gas to Coal Projects
2019	Uganda	Unspecified	Transmission and Distribution	Ex-Im Bank	208	Uganda rural electrification project
2013	Bangladesh	Coal	Power Generation	Ex-Im Bank	129.3	Kodda Power Plant
2009	Cambodia	Unspecified	Transmission and Distribution	Ex-Im Bank	75.86	Phnom Penh Loop Line Phase 2
2013	Cambodia	Unspecified	Transmission and Distribution	Ex-Im Bank	76	115kV Transmission Line and Substation from Phnom Penh to Bavet Project
2016	Zimbabwe	Coal	Power Generation	Ex-Im Bank	998	Hwange Thermal Power Station Expansion (Unit 7-8)
2014	Indonesia	Coal	Power Generation	Ex-Im Bank	373	Pangkalan Susu Unit 3 & 4 Coal Fired Power Plant
2009	Indonesia	Coal	Power Generation	CDB	138	Teluk Sirih Coal-Fired Power Plant (224MW)
2012	Uzbekistan	Coal	Power Generation	Ex-Im Bank	166	Angren Power Station with Uzbekenergo
2013	Venezuela	Oil	Exploration and Extraction	CDB	4015	Increase Sinovensa Production in Orinoco



Date	Country	Energy- Source	EnergySubSector	Lender	Amount (\$m)	Description
2011	Chad	Oil	Multipurpose	Ex-Im Bank	330	N'Djamena Refinery and Pipeline (Loan Offered as Chadian Government's Share)
2014	Argentina	Hydropower	Power Generation	CDB	2500	The Cóndor Cliff-La Barrancosa hydroelectric project with ICBC and BOC
2007	Ghana	Hydropower	Power Generation	Ex-Im Bank	562	Bui Hydropower Project
2008	Gabon	Hydropower	Power Generation	Ex-Im Bank	318	Grand Poubara Dam
2009	Ethiopia	Hydropower	Power Generation	Ex-Im Bank	270	Genale-Dawa III Hydroelectric Power Project
2011	Ethiopia	Hydropower	Transmission and Distribution	Ex-Im Bank	188.3	Gibe III - Addis Ababa Power Transmission Lines and Substations
2009	Sudan	Gas/LNG	Power Generation	Ex-Im Bank	612	Al-Fulah Power Plant
2013	Zambia	Hydropower	Power Generation	Ex-Im Bank	183	Lusiwasi Lower Hydropower Expansion Project & Lunzua Hydropower Rehabilitation Project
2010	Cameroon	Hydropower	Power Generation	Ex-Im Bank	51	Mekin Hydroelectric Dam
2008	Zambia	Hydropower	Power Generation	Ex-Im Bank	316	Extension of Existing 720MW Kariba North Bank Hydropower Project
2015	Indonesia	Coal	Power Generation	Ex-Im Bank	1260	Bangko Tengah, aka South Sumatra 8 or Sumsel-8
2010	Equa. Guinea	Unspecified	Transmission and Distribution	Ex-Im Bank	300	Extension of the Electric Transmission Network of Bata City
2010	Ethiopia	Wind	Power Generation	Ex-Im Bank	99.45	Adama Wind Farm
2015	Mongolia	Unspecified	Transmission and Distribution	Ex-Im Bank	113.04	330 kV Ulaanbaatar-Mandalgobi transmission line
2015	Pakistan	Hydropower	Power Generation	Ex-Im Bank	1024	Neelum-Jhelum Hydro Station
2011	Ghana	Gas/LNG	Multipurpose/ Petrochemical	CDB	850	Western Corridor Gas Infrastructure Develop- ment Project (Atuabo Gas Processing Project and Domuli Natural Gas Export Station)
2016	Bangladesh	Gas/LNG	Transmission and Distribution	Ex-Im Bank	550	220KM Pipeline
2016	Cambodia	Unspecified	Transmission and Distribution	Ex-Im Bank	85	Rural Power Grid Extension Project Phase 5 and 6
2012	Cameroon	Hydropower	Power Generation	Ex-Im Bank	542	Memve'ele Hydropower Station
2012	Chad	Oil	Transmission and Distribution	Ex-Im Bank	130	N'Djamena 90kV loop line and mid-low voltage distribution network; Djarmaya to N'Djamena 66kV transmission line
2016	Laos	Hydropower	Power Generation	Ex-Im Bank	600	Nam Ngum 4 Hydropower Station
2012	Angola	Oil	Exploration and Extraction	CDB	1000	loan to Sonangol
2013	Cote d'Ivoire	Hydropower	Power Generation	Ex-Im Bank	500	Soubre Hydropower Project
2017	Bangladesh	Oil	Transmission and Distribution	Ex-Im Bank	550	Oil Tanker Mooring Platform, Underwater and Onshore Pipeline
2017	Bosnia & Herzegovina	Coal	Power Generation	Ex-Im Bank	732	Tuzla 7 Lignite Power Plant



Date	Country	Energy- Source	EnergySubSector	Lender	Amount (\$m)	Description
2015	Cambodia	Unspecified	Transmission and Distribution	Ex-Im Bank	180	Loop network in southwest regions and the rest of eastern regions
2013	Mali	Hydropower	Power Generation	Ex-Im Bank	145	Gouina Hydropower Project
2013	Niger	Unspecified	Transmission and Distribution	Ex-Im Bank	76	132KV Transmission Project, Preferential Loan
2013	Nigeria	Hydropower	Power Generation	Ex-Im Bank	984.32	Zungeru Hydropower Plant
2014	Zambia	Unspecified	Transmission and Distribution	Ex-Im Bank	45	Kariba North Bank and Kafue West Transmission
2017	Laos	Hydropower	Power Generation	Ex-Im Bank	58.4	86-MW Nam Phay hydropower project
2015	Cote d'Ivoire	Unspecified	Transmission and Distribution	Ex-Im Bank	773	National power grid upgrade project
2017	Uzbekistan	Oil	Exploration and Extraction/ Petrochemical	CDB	1200	Gas to Oil Processing Plant
2015	Ethiopia	Unspecified	Transmission and Distribution	Ex-Im Bank	63.0	Ethiopia-Djibouti Railway power supply
2018	Papua New Guinea	Unspecified	Transmission and Distribution	Ex-Im Bank	133.379	132kv transmission lines (Hagen Mendi Tari Grid Development Project)
2010	Kenya	Unspecified	Transmission and Distribution	Ex-Im Bank	93.4	Rabai - Malindi - Garsen - Lamu Transmission line
2018	Sri Lanka	Hydropower	Power Generation	Ex-Im Bank	148	Thalpitigala Reservoir Dam
2012	Kenya	Geothermal	Exploration and Extraction	Ex-Im Bank	382.5	Drilling Geothermal Stream
2018	Uzbekistan	Gas/LNG	Exploration and Extraction/ Petrochemical	CDB	1000	Gas-to-Liquid Plant with Various Foreign Banks
2016	Uganda	Unspecified	Transmission and Distribution	Ex-Im Bank	85	Electrical Substations and electrification in Luzira, Namanve, Mukono and Iganga indus- trial parks
2013	Belarus	Nuclear	Transmission and Distribution	Ex-Im Bank	323	Power distribution system of Belarusian NPP
2019	Russia	Gas/LNG	Multipurpose/ Petrochemical	CDB	2772.25	Amur Gas Processing Plant (as lead arrange of Chinese syndication)
2017	Zambia	Unspecified	Transmission and Distribution	Ex-Im Bank	113.9	Kabwe - Pensulo 330kV line

Boston University 53 Bay State Road Boston, MA 02215





The Global China Initiative (GCI) is a research inititiative at Boston University Global Development Policy Center. The GDP Center is a University wide center in partnership with the Frederick S. Pardee School for Global Studies. The Center's mission is to advance policy-oriented research for financial stability, human wellbeing, and environmental sustainability.

www.bu.edu/gdp

The views expressed in this Policy Brief are strictly those of the author(s) and do not represent the position of Boston University, or the Global Development Policy Center.

Bunnannannan