



The EU–China energy cooperation: toward a reciprocal partnership?

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Abstract

The EU–China energy relationship had long been characterized by the “donor–recipient” paradigm, whereby the EU provided official development assistance to China. The EU’s assistance of China’s energy sector had been driven by normative, political, and commercial considerations. Today, the normative and political momentum in their energy relationship has been undermined, while energy investment and trade remain a difficult issue. Although the EU has been endeavoring to shape an overall “reciprocal” relationship with China, and stressing energy market access and reciprocity, China is not rushing into anything. The EU and China need to make greater efforts to find impetus for their energy cooperation, for which the involvement of business and industry actors is key. Until this is done, their energy partnership would likely remain a commitment to be fulfilled.

Energy is important in global politics not only because it is deeply intertwined with environmental and climate challenges but also because it matters for such issues as national security, investment, and trade. For the EU and China, the first record of their energy contact can be traced back to 1981—six years after the establishment of their diplomatic relationship. Today, energy has become a regular theme in the dialogues between European and Chinese leaders and plays an increasingly important role in EU–China investment and trade matters.

The EU and China are both among the largest economies in the world. They consume sizable volumes of energy to fuel their economies and thus are both major players in the global energy market. The EU and China share some common challenges in the energy sector, the most pressing being energy security, energy transition, and environmental problems (particularly climate change) attributed to excessive consumption of fossil fuels (EU–China Clean Energy Centre 2015; Kottari and Marantidou 2016). However, remarkable differences exist between them. It is a well-known reality

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that the EU is a forerunner in dealing with energy and energy-related issues, such as climate change. It not only has rich knowledge of energy governance but also takes around one-fifth of the world's clean technology patents. In comparison, the Chinese proportion was only 5 percent in 2014 (NEXT 10 2015). Although a latecomer, China is no less ambitious. The country treats energy conservation and environmental protection as fundamental state policies (*jiben guocce*) and has been endeavoring to transfer to a low-carbon economy. To facilitate its efforts, China embraces foreign aid. In recognition of China's energy needs, the EU has been cooperating with the nation in the energy sector by "providing assistance to China in line with European development strategy" (EU–China Clean Energy Centre 2015: 18). Therefore, the EU–China energy relationship had long been characterized by the "donor–recipient" paradigm. However, with China growing economically stronger, the EU terminated its bilateral official development assistance (ODA) programs to China and has been increasingly highlighting the reciprocal nature of their relationship. Against this backdrop, the EU–China energy relationship has been shifting away from ODA. In this article, the author reviews the evolution of the EU's ODA to China's energy sector, identifies the key motives of the former, and discusses the prospects for the EU–China energy relationship.

The article starts with an introduction of ODA in EU's affairs and a discussion on the policy evolution and disbursements of the EU's ODA to China. In section two, the focus turns to the EU's ODA to China's energy sector, whereby its drivers for doing so are investigated. In the following section, an analysis of the prospects for the EU–China energy cooperation is provided, while some concluding remarks constitute the final section.

The EU's ODA to China

The ODA is never one of the key focuses of European and Chinese policymakers and scholars. Indeed, it might be beyond some people's imagination that China, the world's second largest economy and an emerging donor of ODA, is still an aid recipient. Today, China receives a considerable volume of ODA from a number of countries and international organizations, including the EU and its member states.

ODA in EU's affairs

The EU and its member states are prestigious as generous donors of ODA in the global arena. They collectively donated EUR 74.4 billion in 2018, accounting for over half of total global ODA. In the EU, ODA is a shared competence between the EU institutions and member states. While its member states have their ODA programs, the EU operates its programs as well. This makes the EU a unique actor in the development domain.

The EU's ODA programs are managed through a complex system. In brief, the EU's ODA finance comes from two sources: the European Development Fund and the budget of the European Commission (EC). The finance of the European Development Fund is based on voluntary contribution from member states and exclusively supports seventy-nine developing countries in the African, Caribbean, and Pacific regions. It is regulated by a multilateral agreement between the EU and these developing countries. The EC's budget is collected and allocated according to its financial regulations,

managed by the Directorate-General for International Cooperation and Development, and is provided in the form of grants. The expenditure of the EU's ODA is regulated by the multiannual funding framework (MFF), which serves as the EU's long-term spending plan. The current MFF regulates the EU's spending from 2014 to 2020. According to this MFF, the EU will have invested EUR 58.7 billion to support its aid projects over these seven years.

The EU devised a number of geographic and thematic instruments to implement these projects. The lion's share of the EU's ODA budget is taken by the Development Cooperation Instrument (DCI). The DCI is being funded by EUR 19.6 billion from 2014 to 2020. It holds the primary objective of poverty reduction and covers EU partner countries in Asia, Africa, and Latin America. In addition, it also funds thematic programs that are open to all developing countries and a program exclusively for Africa.

The spending of the EU's ODA is highly concentrated in terms of geography. In 2018, around half of the EU's ODA was spent in European neighborhood areas and South-Saharan Africa, while the ODA flow to Far East Asia was modest. Therefore, it is reasonable to expect that China is not a major recipient of the EU's ODA. In fact, with a record of around EUR 165 million, China ranked low on the EU's recipient list in 2018 (Fig. 1).

Evolution of the EU's ODA policy on China

Reviewing the history of the EU's ODA to China, four phases can be identified. The first phase was inaugurated in 1984 when the EU's first amount of ODA was granted to China, and ended in 1994. The EU and China signed the "Agreement on Trade and Economic Cooperation" in 1985, which has been regulating their economic relations since then. In this document, the EU confirmed its willingness to carry out development activities in China and underlined energy as a key area for their economic cooperation.

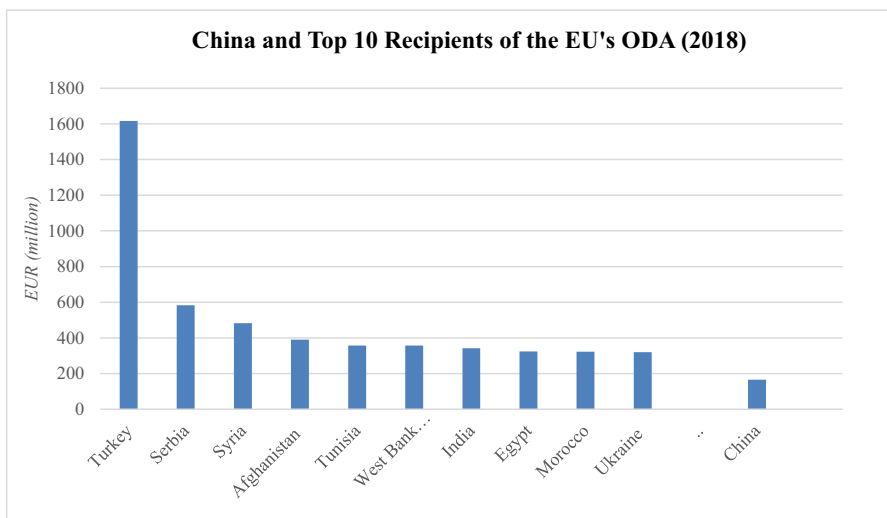


Fig. 1 China and Top 10 Recipients of the EU's ODA (2018). Data Source: EU Aid Explorer

However, the priority of the EU's ODA to China was given to the rural sector instead of energy (EC 1995; Zhou et al. 2015: 266).

The release of the EU's first policy paper on China—"A Long Term Policy for China-EU Relations"—in 1995, marked the commencement of the second phase of EU's ODA to China. In this paper, while committing to support China's rural development, the EU set three priorities for its ODA programs to the country: cooperation in areas of critical importance for the Chinese economy, cooperation that has a catalytic effect on best practice within the Chinese system, and cooperation that bolsters reform (EC 1995). In the next three European policy papers on China, released in 1998, 2001, and 2003, the EU reiterated its pledge to assist China by providing ODA. The EU published its first country strategy paper on China (2002–2006) in 2002. In the paper, the EU stressed the formidable challenges China was facing and thereby the country's grave needs of ODA. It regulated that the EU's main objective in aiding China was "to support the transition process and the sustainability of the economic and social reforms while integrating China further in the international community and world economy" (EC 2002: 7). To turn this objective into reality, the EU should adopt "the promotion of sustainable development and assisting China to pursue a better balance between environmental protection, social development and economic growth" as one of its major focuses (EC 2002: 5).

A drastic change of tone was recorded in the EU's fifth policy paper on China released in 2006, which ushered the EU's ODA policy on China into the third phase. In the document, entitled "EU-China: Closer Partners, Growing Responsibilities," the EU declared that "as China moves further away from the status of a typical recipient of overseas development aid, the EU must calibrate its cooperation programme carefully and keep it under review. Cooperation must be in both sides' interests, reflect the EU's own principles and values, and serve to underpin the partnership" (EC 2006: 10). This new vision of China as an aid recipient was reinforced in the EU's second strategy paper on the country (2007–2013), wherein the EU recognized China's dual identity: both a developing country and a significant player on the world stage. As such, the EU turned its attention to supporting China with ODA in three main fields: China's reform program; global concerns over the environment, energy, and climate change; and China's human resources development (EC 2007: 4). In parallel with the policy change, the total volume of the EU's ODA to China decreased sharply to EUR 224 million for the seven years from 2007 to 2013, compared with EUR 250 million for the five years from 2002 to 2006.

The release of the "Agenda for Change" in 2011 led the EU's ODA policy on China into the fourth phase. The "Agenda for Change" laid a new foundation for the EU's ODA policy. In the document, the principles of differentiation, concentration, coordination, and coherence were established. The differentiation principle requires the EU to "seek to target its resources where they are needed most to address poverty reduction and where they could have greatest impact" (EC 2011a: 9). To this end, the EU needs to establish a differentiated approach to aid allocation and partnerships. In parallel with the adoption of the "Agenda for Change," the EU raised the proposal for the MFF (2014–2020). In the proposal, the EU excluded China along with other eighteen countries from its ODA recipient list. From the European point of view, these countries (including China) already had the capability to generate sufficient resources to ensure their own development and thus should not be considered as proper ODA recipients

any longer. However, a small window remains open for these countries because they are eligible for thematic and regional cooperation programs (EC 2011b). The EU reaffirmed its expectation of making “its relationship with China to be one of reciprocal benefit in both political and economic terms” (EC 2016: 4) in its 2016 policy paper on China: “Elements for a New EU Strategy on China.” Reciprocity was then unprecedentedly underlined by the EU in “EU–China—A Strategic Outlook” published in March 2019. The paper, with little benign description of China, marks the EU’s shift toward a more realistic, assertive, and multifaceted approach to the country. China is defined in the paper as the EU’s cooperation partner, negotiating partner, economic competitor, and systemic rival, which is showing ambition to become a leading global actor. In terms of development aid, for the EU, today, “China has moved from being a traditional recipient of overseas development assistance to the position of a strategic partner with whom the EU engages on a wide range of policy issues” (European Union External Action Service 2019).

In sum, the EU’s ODA policy on China has evolved in the past decades. Whereas the EU once treated China as an ODA recipient, it recognized China’s rapid rise, which finally resulted in policy changes over the nation. Today, the EU views China as a country that is capable of solving its problems by itself, and thus it has been increasingly fostering the construction of a more reciprocal partnership with China.

Disbursements of the EU’s ODA to China

Although no longer eligible for the EU’s bilateral ODA programs, China is still receiving finance from the EU via various instruments. In the mix of the EU’s ODA to China in 2018, the DCI has been the most significant instrument in that around half of the EU’s ODA to China was allocated through its thematic and geographical programs (EC–International Cooperation and Development 2019). For example, China has been an active participant of the “SWITCH-Asia” program, which is funded through DCI. With the European donation of over EUR 500 million, the program involves nineteen Asian countries and is composed of 106 smaller projects, in which China has been a participant in twenty-two (SWITCH-Asia 2019).

Figure 2 shows the EU’s ODA to China in terms of total volume and sectoral distribution from 2009 to 2018. Despite the overall flux, the largest share of the EU’s ODA has been reserved for the “economic infrastructure and services,” where the “energy sector” is located, and “production” sectors. Economic benefits are expected in these sectors, and thus the ODA to them is provided mostly in the form of concessional loans, which should be paid back.

The EU’s ODA to China’s Energy Sector

It has been observed that three key aspects exist in the EU’s engagement with China’s energy sector: (1) technology development for energy use (technical assistance from Europe and joint research and development programs), (2) trade and investment by European companies in equipment for energy extraction and utilization, and (3) European support for research in energy policy development (Zha 2016). Although the second aspect encompasses more business factors, the other two underpin the

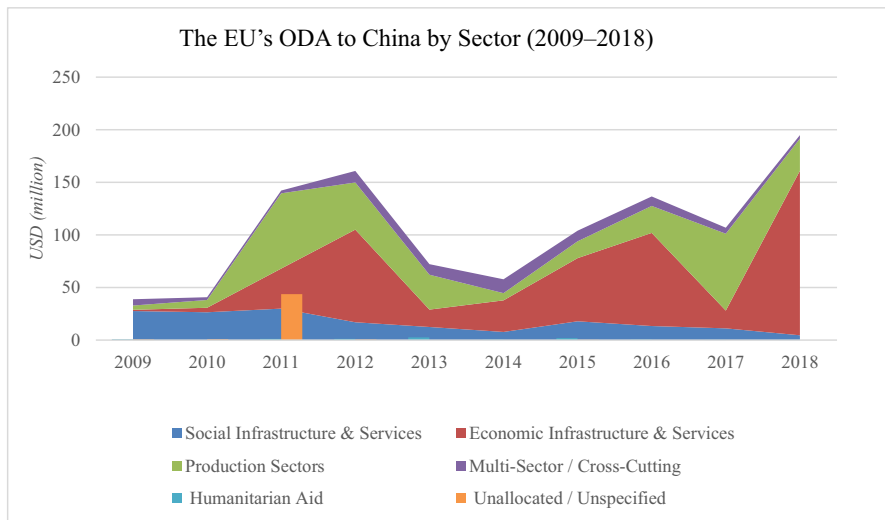


Fig. 2 The EU's ODA to China by Sector (2009–2018). Data source: Creditor Reporting System, Gross Disbursements of ODA, Constant Prices, 2018

“donor–recipient” feature of their bilateral relationship. In this section, the author analyzes the policy evolution and disbursements of the EU's ODA to China's energy sector and examines the EU's motives for doing so.

Evolution of the EU's ODA policy on China's energy sector

Energy as a sector in the EU's ODA to China did not become important until the late 1990s. In 1995, the EU published its first policy paper on China, which set the target of assisting China in transferring to a sustainable economy. To do so, the EU recognized its role of encouraging “the development of energy policy-making in China, with technical assistance to energy resource development and training in best practice” (EC 1995). In the 1998 version of this serial paper, the EU elaborated its commitments to assist China more explicitly by stating that “Europe should offer its environmental and energy know-how to China to help it develop efficient and clean industries and also to establish a presence in its potentially lucrative market for green technology” (EC 1998: 21). Similar commitments were announced by the EU in the 2001 and 2003 versions of the paper.

In its first strategy paper on China published in 2002, the EU underlined the significance of the energy sector for China and the world. It stated that “the size of its [China's] energy sector renders the country's energy policy and its potential impact on the world scene a matter of great international importance” (EC 2002: 15). To assist China in tackling energy challenges, the EU declared, with a similar tone to its 1998 policy paper on China, that “Europe should offer its environmental and energy know-how to China to help develop efficient and clean industrial processes and energy production” (EC 2002: 28). In “EU–China: Closer Partners, Growing Responsibilities” released in 2006, which marked a milestone for the EU's ODA policy on China, the EU emphasized China's growing responsibilities in the energy field, domestically and globally, as the title of this document suggests. Instead of offering ODA to China's

energy sector, it announced that “the EU’s priority should be to ensure China’s integration into world energy markets and multilateral governance mechanisms and institutions, and to encourage China to become an active and responsible energy partner” (EC 2006: 5).

With the conclusion of the EU’s bilateral ODA programs to China in 2011, the construction of a more reciprocal bilateral relationship has been prioritized by the EU. In the “Elements for a New EU Strategy on China” released in 2016, the EU stated that “the fundamental principle of the EU’s relationship with China is that it should be based on reciprocal benefit in both political and economic terms” (EC 2016: 4). However, the reciprocity narrative was not automatically introduced to the energy sector. In the more operational “EU–China Roadmap on Energy Cooperation (2016–2020)” that the two sides signed in 2016, although they agreed to build mutual trust on market-related energy issues, “reciprocity” was not mentioned in the document. Neither was it included in the “EU–China Leaders’ Statement on Climate Change and Clean Energy” published in 2018. This did not change until the publication of the “Joint Statement on the Implementation of the EU–China Cooperation on Energy ” in April 2019. In the document, the two partners agreed that “businesses . . . need the right platforms and opportunities to successfully commercialize their ideas. Both sides therefore seek to address the need for a level playing field that offers reciprocal opportunities and challenges for innovative firms in the energy sector” (EC – Energy, 2019). By explicitly mentioning reciprocity, the EU has successfully, at least to some extent, brought China on board.

Disbursements of the EU’s ODA to China’s Energy Sector

As a component of the EU’s ODA, the energy sector is inevitably affected by the change of the EU’s overall aid policy on China. Figure 3 illustrates the EU’s ODA

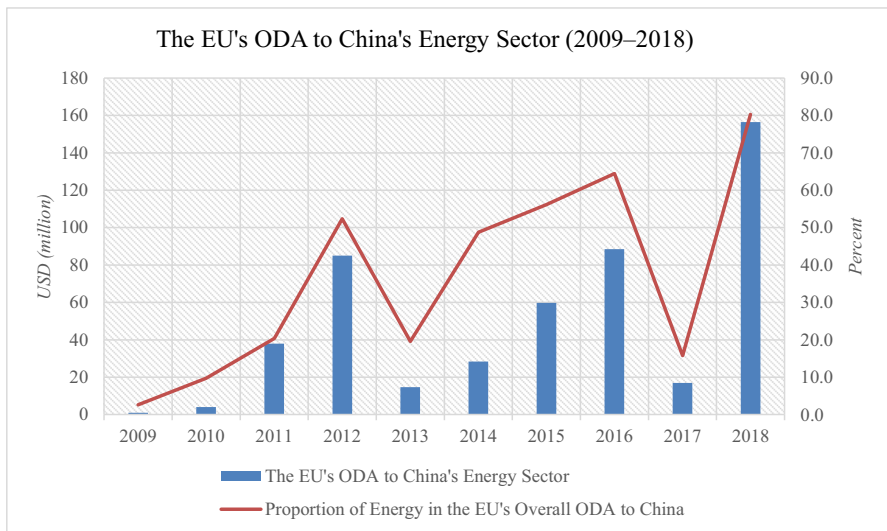


Fig. 3 The EU’s ODA to China’s Energy Sector (2009–2018). Data Source: Creditor Reporting System, Gross Disbursements of ODA, Constant Prices, 2018

flows to China's energy sector from 2009 to 2018. In this decade-long period, the EU invested considerably in China's energy sector, occupying more than 40 percent of the EU's total ODA to China. The EU's ODA to China's energy sector fluctuates dramatically over time. Though the disbursements peaked in 2018 in terms of total volume and proportion, they were modest in 2010, 2013, 2014, and 2017, and almost nothing in 2009.

With these budgets, the EU and China jointly implemented a number of energy projects, among which the Energy and Environment Programme, the EU–China Clean Energy Centre, and the Institute for Clean and Renewable Energies are the largest.¹ The Energy and Environment Programme was launched in 2003 and concluded in 2009. It was funded with a total budget of EUR 42.9 million, including EUR 20 million from the EU's ODA. It aimed to “contribute to sustainable energy production and consumption, improve energy security, and support the EU–China policy dialogue on energy and climate change” (EC 2009: 14). In 2009, the two sides established the EU–China Clean Energy Centre with the European donation of EUR 10 million. The center was completely funded by the EU and thus viewed as “a piece of free dessert” for China (Dong 2010). It was a five-year project with the principal tasks of promoting the increased use of clean energy in China and supporting the Chinese government's efforts to reshape its energy sector (Delegation of the European Union to China 2012). The Institute for Clean and Renewable Energies was jointly built by the two partners in China in 2012 and is mainly funded by the EU (EUR 10 million). It has such duties as implementing educational activities via its master's diploma education, vocational training, and cooperative research and consultancy activities in various energy fields (China–EU Institute for Clean and Renewable Energy 2019). In addition, China's energy sector has also been benefiting from “umbrella projects” whereby a number of smaller projects are incorporated. For example, the EU–China Policy Dialogues Support Facility (I–II) program was launched in 2007 and came to an end in 2017. The program received finance from both China and the EU. It supported various activities and events in eight key areas, including several energy-related ones such as climate change and eco-design (EU–China Policy Dialogues Support Facility n.d.).

Drivers of the EU's ODA to China's energy sector

Like other donors, the EU's ODA to China is motivated by a mix of altruistic and egoistic considerations. As argued by Jonathan Holslag (2010), the EU had been assisting in China's energy sector based on its recognition of the potential damage from China's environmental deterioration on the world's environment and economy, its attempt to promote the energy trade (particularly in clean energy) with China, and the consideration to mitigate its competition with China for conventional sources supply. In the “EU–China Energy Cooperation Roadmap 2020 (Concept Note),” which is jointly

¹ For a full list of EU–China projects in energy, please refer to EU–China Clean Energy Centre (2015) ANNEX I–Europe–China projects in energy-related fields. http://ec2.rec.org/e-learning/publications/Annex%20I_Roadmap_English.pdf. Accessed 11 September 2019; European Commission–Energy (n.d.) Concrete cooperation projects under the EC–China Energy Dialogue. https://ec.europa.eu/energy/sites/ener/files/documents/concrete_cooperation_projects_ec_china_energy_dialogue.pdf. Accessed 4 September 2019; Delegation of the European Union to China (2016) List of projects. http://ceas.europa.eu/archives/delegations/china/projects/list_of_projects/projects_en.htm. Accessed 4 September 2019.

formulated by European and Chinese energy experts, the EU's intention to use ODA to enter and expand in China's energy market is also revealed. It states that "assisting China to make progress on such global challenges as sustainable development, environmental protection and climate change is in line with the promotion of its [the EU's] normative influence at global level" (EU–China Clean Energy Centre 2015: 18).

Examining the logic of the EU's ODA on China's energy sector and summarizing previous studies, three drivers can be identified: normative driver (selling the EU's idea of clean development to China), political driver (obtaining Chinese support in dealing with global energy and energy-related issues, particularly climate change), and commercial driver (obtaining access to China's energy market with more trade and investment).

Norms in international relations are viewed as "standards of behaviour defined in terms of rights and obligations" (Krasner 1982). They are contended as being capable of generating impact on the behavior of actors in international relations (Finnemore and Sikkink 1998). In energy and energy-related fields, the EU's role as a norm builder is widely acknowledged. In the case of China, the EU had been a keen salesperson of its ideas on green growth. To influence China's energy policymaking, the EU is playing the "catalyst" role, "trying to speed up impending policy changes in China that are in line with the EU's priorities rather than trying to exert direct influence over Chinese policy priorities themselves" (De Cock 2011: 104). To do so, the EU had been "offering help to Chinese officials to speed up its transition away from an energy mix with a high carbon intensity to a greater focus on energy efficiency and low-carbon energy sources" (De Cock 2011: 104).

The political motive of the EU's ODA on China's energy sector is mainly observed in energy-related issues. In the EU–China energy relationship, the two parties share little interdependence on primary energy commodities, and neither are serious competitors in the global energy market (Zha 2016). Therefore, energy-related issues, particularly climate change, constitute the cardinal political concern for the EU's aid to China's energy sector. In the realm of climate change, the EU and China's key roles are in little doubt: Both of them are main contributors to global warming and thus hold the key to solving this problem. China and the EU jointly contributed 37 percent (China 27 percent, and the EU 10 percent) of global greenhouse gas emissions in 2017 (Global Carbon Project 2018). In addition, the EU is a conventional leader of climate change negotiations, while China is the leader of the developing camp and is becoming more proactive in this area. For the EU, it recognizes China's critical role in tackling global warming and strives for China's collaboration by engaging with its domestic energy sector (De Matteis 2010).

With respect to the commercial driver of the EU's ODA to China's energy sector, it is rational for the EU, which is a pioneer and leader in energy governance, to turn its know-how to tangible commercial gains. As a giant and fast-growing economy, China consumed the largest volume of global energy and contributed over one-third of global energy demand growth in 2018 (British Petroleum 2019). Among all the energy forms, China pays particular attention to clean energy, which has boomed since the mid-00s. This offers exceptional business opportunities for European energy companies, which share competitive advantages in management and technology. The EU recognizes the potential of China's energy market and attempts to use ODA to pave the way for its energy investment and trade.

Prospects for the EU–China energy relationship

In the identification of the normative, political, and commercial drivers of the EU–China energy relationship, the question is “What are their respective roles in the EU–China energy relationship?” and “How will they shape the EU–China energy relationship in the future?”

Norms in future EU–China energy relationship

As discussed earlier, the EU had been assisting China in transferring to a cleaner growth pattern. Indeed, although not necessarily a result of European efforts, China has become increasingly in favor of clean energy and is more proactive in containing global warming. Take the clean energy industry as an example. Chinese leaders view clean energy as an opportunity to make China’s economy more sustainable and competitive (Schoen 2013). In 2018, China invested USD 91.2 billion in the renewable energy industry, occupying almost one-third of global total investment. Today, China is home to nearly one-third of the world’s renewable power capacity and is leading the world in multiple renewable energy fields, such as hydropower capacity and generation, biopower capacity and generation, wind power capacity, and geothermal heat capacity (Murdock et al. 2019). China is attempting to raise the mix of clean energy in its energy consumption to around 20 percent by 2030, and over half by 2050.

The impact of the EU’s engagement on China’s energy policymaking is recognized by both European and Chinese stakeholders (Knodt et al. 2015). However, it remains difficult to assess to what extent China’s energy policy transition is a consequence of the EU’s engagement. Examples of such impact exist widely at a technical level, such as the adoption of Carbon Capture and Storage technologies, and the deployment of Clean Development Mechanism. However, as regards the state level, this kind of assessment remains a methodological challenge (De Cock 2011: 105). What is clear now is that the green growth ideas have been widely recognized and accepted by Chinese leaders. Since Xi Jinping took power in 2013, an environmental protection campaign has been launched across China, and “environment protection and sustainable development,” which has been assimilated into the Chinese “ecological civilization” concept, has been exploited to improve China’s global image and exert soft power. In China’s most ambitious project—the “Belt and Road” initiative—for example, “green development” has been identified as one of the key objectives, and China vows to build a green “Belt and Road” by sharing its green development knowledge, technologies, and experience with the encompassed developing world (Chinese Ministry of Environmental Protection et al. 2017). For China, it believes that as a developing country, which shares similar challenges in poverty elimination, economic growth, and environmental protection with other developing partners, its know-how could fit the needs of the developing world better than that of the developed economies. Thus, in this context, whereas China is sparing no effort to fine-tune its energy mix at home and endeavoring to spread its green development idea abroad, it has found confidence in the domain, and there is little room left for the EU to exert its normative role.

Politics in future EU–China energy relationship

In the global effort to contain global warming, the EU had been long acting as the leader while China was playing second in command. However, the EU and China's respective roles in climate change politics have evolved in the past decade. China has become increasingly proactive since setting its first greenhouse gas emissions reduction target in 2009. Today, the country is taking reduction actions that are “the strictest in the world and its enforcement is the strongest” (Xue and Xuan 2013: 13). With these increased efforts, China's profile in climate change politics has been raised dramatically. This is reflected in the success of the 2015 Paris Conference, in which China played a key role (Dimitrov 2016; Parker et al. 2017).

The EU's role in climate change has also evolved, particularly since the 2009 Copenhagen Conference. At Copenhagen, the EU's leadership on climate change was seriously challenged when a binding reduction target was not reached. Learning from this frustration, the EU changed its role from leader to “leadadiator” (leader-cum-mediator) (Bäckstrand and Elgström 2013; Oberthür 2011) and endeavored to serve “as a bridge-builder between the major blocs trying to tilt the balance as much as possible in favour of its own overall objectives” (Oberthür 2011: 10). At the Paris Conference, the EU adopted the tactic of acting as “leadadiator” (Oberthür and Groen 2016). Although it only achieved 41 percent recognition of leadership in Paris (for comparison, this figure was 46 percent in Copenhagen) (Parker et al. 2017), with the aid of favorable external conditions, the outcome of the Paris Conference became a relative success for the EU (Oberthür and Groen 2016).

In addition to the two actors' established roles in climate change, the significance of their cooperation was amplified by the withdrawal of the United States (US) from the Paris Agreement in June 2017. Soon after the US withdrawal, the European and Chinese leaders reaffirmed their commitments to the agreement. As the then EU climate commissioner Miguel Arias Cañete said, “the EU and China are joining forces to forge ahead on the implementation of the Paris agreement and accelerate the global transition to clean energy.” “The EU and China have decided to move forward . . . Now is the time to further strengthen these ties to keep the wheels turning for ambitious global climate action” (Boffey and Neslen 2017). In China's policy paper on the EU published in December 2018, China reiterated its willingness to take joint actions to advance follow-up negotiations and effective implementation of the Paris Agreement. This was echoed by the EU, which recognized China as a strategic partner in this field in “EU–China – A Strategic Outlook,” despite the overall assertive tone of the document. However, recognizing the inspiring statements, the degree to which climate change matters for the EU and China is not without question. Facing the gloom brought by the US withdrawal and thus the world's need for joint inspiration by the EU and China, a formal climate statement was blocked by their divisions over trade (Blenkinsop and Emmott 2017). This suggests that the importance the EU and China attach to climate change should not be exaggerated.

Commerce in the future EU–China energy relationship

The European energy companies are aware that there are a lot of opportunities in China's energy market. However, although they have been showing strong interest in

the said market, their efforts to take a share have been largely proven to be a failure story. As pointed out by Jonathan Holslag (2010: 122), “from a European commercial perspective, the gains from providing aid to China remain limited.” The “limited” gains in the EU’s energy relationship with China are demonstrated in terms of both investment and trade, which display highly unbalanced images.

On investment, although China’s investment in the EU’s energy sector has soared in recent years, European companies’ investment in China’s energy sector has remained almost zero. From 2000 to 2014, over EUR 46 billion in Chinese investments flew into Europe, of which around EUR 13 billion (or 28 percent) went to the energy sector (Hanemann and Huotari 2015). While China’s energy investors are flooding into Europe, their European counterparts have found it difficult to break into the Chinese energy market. For China, energy is an area of strategic significance and a matter of national security, which must be mandated by Chinese hands. The EU has been repeatedly complaining about the barriers to investing in the Chinese market, such as the lack of transparency, industrial policies, and nontariff measures that discriminate against foreign companies, strong government intervention in the economy, and poor protection and enforcement of intellectual property rights (European Commission – Trade 2019). In the “Elements for a New EU Strategy on China,” the EU treated access to the Chinese market as the uppermost priority. It claimed that “the EU wants a China which is economically more open and stable, with significantly improved market access for foreign companies as well as a level playing field and fair competition for business and investment” (EC 2016: 5). Taking a further step from the document, the EU strongly underlined the market access issue in “EU–China – A Strategic Outlook”, stressing that “China has also increasingly become a strategic competitor for the EU while failing to reciprocate market access and maintain a level playing field,” thus adopting the development of a more balanced and reciprocal economic relationship as one of the main objectives (EC 2019)

Although the EU is suffering from an energy investment imbalance with China, the latter’s energy trade is not in the EU’s favor. In terms of primary energy, both sides are heavily dependent on imported fuels. For example, in 2018, more than 70 percent of China’s oil supply came from abroad, and that proportion for the EU was over 90 percent. Therefore, they are not important trade partners for one another. Regarding clean energy, which has been acknowledged by European and Chinese policymakers as having great economic potential, the EU has been largely an importer of Chinese clean energy products such as solar panels and wind turbines, while its exports to China remain minor. For example, their trade in solar energy products has long been dominated by China’s exports to the EU, while the EU’s exports to China have been negligible. In the case of the wind energy sector, the trade surplus once possessed by the EU has been reversed and is now largely in favor of China—the same as the solar energy sector. Trade frictions come with trade imbalance. Between 2012 and 2013, the EU and China experienced a severe energy trade dispute on solar panels, which turned out to be the largest ever trade dispute in the history of their relationship. In the past few years, disputes over the clean energy trade have never ceased, which casts a shadow over the prospects for their energy relationship (Curran et al. 2017).

The normative, political, and commercial factors have been playing their respective roles in EU–China energy relations, and they were jointly driving the EU’s energy aid to China. Despite the EU’s intentions of shaping the Chinese energy mindset, policy,

and the opening up of China's energy market with the help of aid, it has had limited impact with its efforts. For China, at the beginning of the EU's engagement, it welcomed the EU's finance and knowledge to improve its energy governance capability. It also found the EU an active actor in climate change negotiations, with which it could cooperate to help defend its interests and press other reluctant large emitters, particularly the US. However, today, China has increasingly become an independent and proactive actor in the energy and climate fields, and the EU's perception of it in this vein has dramatically changed. While China is taking harsh measures to foster green development at home and exporting its energy ideas, products, and technologies abroad, the EU's aid has become less valuable for the country. For the EU, although China remains a partner in some cases, it is increasingly recognized as a normative, political, and economic competitor in the energy field.

Concluding remarks

In this article, the author examined the transformation of the EU–China energy relationship. In recent decades, the EU has been offering ODA to China's energy sector based on its normative, political, and commercial considerations. Today, as China has become an energy superpower, the European normative impact on it has faded away; the EU's political influence on China is rhetorical, and their commercial relationship has encountered difficulties. Recognizing the limited outcomes of shaping China's energy sector in its favor and gaining economic benefits with the help of aid, as well as China's ascendance in energy and energy-related affairs, the EU has been increasingly pushing its energy relationship with China transfer from the “donor–recipient” paradigm to the “reciprocal partnership.”

A recent attempt to build such a partnership is the establishment of the EU–China energy cooperation platform in May 2019. The three-year project is funded by the EU and gathers a wide array of actors: not only public authorities and associations but also the energy industry and businesses, research institutes, and think tanks. It is an innovative mechanism to operationalize the EU–China energy dialogue, whereby the creation of reciprocal opportunities, which interest the EU particularly, as well as energy system, energy efficiency, and renewable energy development, which benefit both sides and are of global significance, are identified as its four pillars. Its mandates cover the concerns of both sides and thus can be viewed as a joint exploration of their new relationship. However, as a recent creation, its operation remains to be observed.

It is in little doubt that energy is not only important for the EU and China and their bilateral relations but also for the globe. In the transformation stage of their energy relationship, the challenge that the China–EU energy relationship faces is that, while normative and political driving forces are abating, the commercial foundation for their energy relationship is not yet established. Although Chinese and European policy makers are trying to figure out new cooperation potentials, such as assisting China in energy policy and energy systems, and working together to contribute to the solution of global challenges, they are not sufficient to interest both sides considerably, particularly the EU, which now sees China as a partner that is capable of solving its own problems, and to provide a sustainable and strong driving force for their energy relationship. The EU and China need to make greater efforts to find impetus for their energy cooperation,

for which the involvement of business and industry actors is the key. Until then, their energy partnership would likely remain a commitment to be fulfilled.

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