Research Proposal for the AREA Ruhr -Proposal and Preliminary Results- Workshop May 17, 2019.

By Miquel Salvadó Gracia, member of the 2nd cohort of the program -Transnational Institution Building and Transnational Identities of East Asia- Ruhr University Bochum & University of Duisburg-Essen. Alliance for Research of East Asia (AREA) Ruhr.

<u>Provisional title</u>: China and the Global Renewable Energy Governance. *Contrasting South-South and North-South cooperation*.

<u>Context & Research Question:</u> The field of global renewable energy governance is rather new in academic and policy related discussion (Roehrkasten 2015:24) but it is a crucial one due to its geopolitical nature (IRENA 2019 A New World, the Geopolitics of Energy Transition).

The Peoples Republic of China (PRC), the largest consumer of commercial energy in the world and a major pollutant is also a leader in the field of global renewable energy (Buckley & Nicholas 2017, Speed 2019). According to a report by the Institute for Energy, Economic and Financial Analysis (IEEFA) "[i]n renewables, China is now actively pursuing a "Going Global" strategy, particularly in conjunction with its "One belt, One Road" program […]" (Buckley & Nicholas 2017:1).

The 2019 report published by the International Renewable Energy Agency (IRENA) states that "[...] leaders in technological innovation are positioned to gain the most from the global energy transformation. No country has put itself in a better position to become the world's renewable energy superpower than China. Additionally, it is now the world's largest producer, exporter and installer of solar panels, wind turbines, batteries and electric vehicles, placing it at the forefront of the global energy transition." (IRENA 2019:40). Moreover, in 2017 the PRC released two documents that have globally projected its environmental shift "The Guidance on Promoting Green Belt and Road" and "The Belt and Road Ecological and Environmental Cooperation Plan". Complementing the investments, trade and guidelines, the PRC launched the International Investment Alliance for Renewable Energy (IIARE) in 2018. This new institution attempts to internationalize the Chinese renewable energy emergence. According to the Chinese Chamber of Commerce website, the IIARE is part of the "One Belt, One Road" initiative and the "International Capacity Cooperation" (Enkhardt 2018).

In the renewable energy sector, Chinese industrial policy has had a global impact in driving down the costs, especially in the case of solar PV (Speed 2019:137). Building on Lundvall (2007), Ockwell (2009), Watson et al. (2011) and Lewis (2013), Speed (2019:139) argues that globalization has increased the phenomenon of international technology transfer, one of contributing industries being that of low-carbon energy. The PRC is transitioning from being a technological recipient to a producer and exporter and this has political consequences (Urban 2018, Hensengerth 2018, Kirchherr & Urban 2018, Kirchherr & Matthews 2018, Chen 2018). Given all

these recent developments, this research will look at the PRC's actors' take on global renewable energy governance focusing on the political impact of international technology transfer.

Research Design: Finkelstein (1995:369) defines global governance as "governing, without sovereign authority, relationships that transcend national frontiers". According to Finkelstein global governance consists of the whole range of international, intra-regional, bilateral and transnational interactions. Thus, the study of global governance focuses on "identify[ing] and examin[ing] the processes of influence, decision, and action that shape or determine them [global interactions] [...]" (Finkelstein 1995:368,369). The present research, following Finkelstein's definition, focuses on the intra-regional and transnational scale to identify global trends in renewable energy governance.

Given that South-South Cooperation (SSC) on renewable energy is rapidly increasing, the China-CELAC (Community of Latin American and Caribbean States) Forum was recently created (2015), and the Latin American and Caribbean countries (LAC) were included in the scope of the Belt and Road Initiative in 2018, the LAC will be used as a case study to analyze the PRC's global engagement on renewable energy governance.

Concerning methodology, the research attempts to engage in a comparative case study (small n) of the Chinese and the EU transfer of technology and regulations, using as a unit of analysis large-scale solar PV projects in LAC with foreign (EU or Chinese actors) involvement that started during or after 2013. The European activity in the region is used as a benchmark to gain perspective on the Chinese actors' dynamics. The comparison will look into the characteristics of the Chinese actors when exporting technology, how this is (if at all) creating a new distribution of agencies in the recipient region and whether it carries along regulation or policy change.

If data allows, part of the research, with medium n, will look at the political conditions that facilitate the granting of large-scale solar PV projects in LAC with foreign involvement that started during or after 2013. By doing so, a projection of foreign participation in the expected exponential growth of these kind of installations could be drawn.

In order to comprehend the Chinese evolution in global renewable energy governance, a historical approach will be added. To do so, the way in which previous and incumbent powers' (Denmark and Germany) governance in renewable energy emerged and became institutionalized will be studied.

Despite the steep increase in cooperation in the area, China-LAC renewable energy interactions have received little attention from the academic world. This research seeks to fill this gap.

The intention is to study primary and secondary sources, and to conduct semi-structured field interviews with private and public workers. These interviews will be with experts in the renewable energy sector in both the PRC and LAC. This will offer the context and data required for the analysis.

The research hopes to contribute to:

- the burgeoning literature on South-South cooperation (renewable energy technology transfer) by identifying its distinct characteristics when contrasted with the North-South cooperation.
- the debate on the Chinese role in LAC by determining whether China is growing its relative power in the LAC region (Vadell 2018, Jakóbowski 2018, Alden & Alves 2017) and whether this is displacing the other great powers from the region (Nolte 2018) in the field of renewables.
- the description of the patterns of Chinese emergence in the field of global renewable energy governance.

References

Alden, C. & Alves, A. 2017, "China's Regional Forum Diplomacy in the Developing World: Socialisation and the 'Sinosphere'" Journal of Contemporary China, 26:103, 151-165.

Andrews-Speed, P. & Zhang S. 2019, "China as a Global Clean Energy Champion: Lifting the Veil" Palagrave Series in Asia and Pacific Studies.

Belt and Road Portal, Chinese Government, 14 May 2017, "The Belt and Road Ecological and Environmental cooperation Plan", https://eng.yidaiyilu.gov.cn/zchj/qwfb/13392.htm, accessed in 17 April, 2019.

Belt and Road Portal, Chinese Government, 8 May 2017, "Guidance on Promoting Green Belt and Road", https://eng.yidaiyilu.gov.cn/zchj/qwfb/12479.htm, accessed in 17 April, 2019.

Buckley, T. & Nicholas, S. 2017, "IEEFA Reoport: China in 2017 Continued to Position Itself for Global Clean Energy Dominance" IEEFA

Chen, Y. 2018, "Comparing North-South technology transfer and South-South technology transfer: The technology transfer impact of Ethiopian Wind Farms", Energy Policy, vol. 116, pp. 1-9.

Edenhofer, O. & Pichs-Madruga, R. & Sokona, Y. eds. 2012, "Renewable Energy Sources and Climate Change Mitigation. Summary for Policymakers and Technical Summary" Special Report of the Intergovernmental Panel on Climate Change. IPCC.

Engels, A. 2018, "Understanding how China is championing climate change mitigation", Palgrave Communications.

Enkhardt, S., 5 November 2018, "China will Photovoltaik-Zubauziel bis 2020 auf mehr als 200 Gigawatt erhöhen", PV Magazine, https://www.pv-magazine.de/2018/11/05/china-will-photovoltaik-zubauziel-bis-2020-auf-mehr-als-200-gigawatt-erhoehen/, accessed in 15 Abril, 2019.

Finkelstein L.S. 1995, "What Is Global Governance", Global Governance, vol. 1, no. 3 (Sept.-Dec. 1995), pp. 367-372.

Hale, T. & Roger, C. 2017, "Domestic politics and Chinese participation in transnational climate governance" in *Global Governance and China: The Dragon's Learning Curve*, ed. Kennedy, S., Routledge.

Hensengerth, O. 2018, "South-South technology transfer: Who benefits? A case study of the Chinese-build Bui dam in Ghana", Energy Policy, vol. 114, pp. 499-507.

Hirschl, B. & Petschow, U. 2005, "Building a Global Renewable Energy Regime", Beitrag zur Berlin Conference on the Human Dimension of Global Environmental Change: International Organisations and Global Environmental Governance; 2-3 December, Berlin.

IRENA, 2019, "A New World. The Geopolitics of the Energy Transformation", Global Commission on the Geopolitics of Energy Transformation.

Jakóbowski, J. 2018, "Chinese-led Regional Multilateralism in Central and Eastern Europe, Africa and Latin America: 16+1, FOCAC, and CCF", Journal of Contemporary China, 27:113, 659-673.

Kirchherr, J. & Matthews, N. 2018, "Technology transfer in the hydropower industry: An analysis of Chinese dam developers' undertakings in Europe and Latin America", Energy Policy, vol. 113, pp 546-558.

Kirchherr, J. & Urban, F. 2018, "Technology transfer and cooperation for low carbon energy technology: Analysing 30 years of scholarship and proposing a research agenda", Energy Policy, vol. 119, pp. 600-609.

Meckling, J. 2018, "Governing renewables: Policy feedback in a global energy transition", Environment and Planning C: Politics and Space, SAGE Journals.

Meréchal J. 2018, "What role for China in the international climate regime?", Asia Program, Asia Focus #59, Institut de relations internationals et stratégiques (IRIS)

Nolte, D. 2018, "China Is Challenging but (Still) Not Displacing Europe in Latin America" GIGA Focus Latin America.

Roehrkasten, S. 2015, "Global Governance on Renewable Energy. Contrasting the Ideas of the German and the Brazilian Governments", Springer VS.

Schreus, M. 2017, "Multi-level Climate Governance in China", Environmental Policy and Governance, 2017.

Urban, F. 2018, "China's rise: Challenging the North-South technology transfer paradigm for climate change mitigation and low carbon energy", Energy Policy, vol. 113, pp. 320-330.

Vadell, J.A. 2018, "China in Latin America: South-South Cooperation with Chinese Characteristics", Latin America Perspectives. SAGE Journals.

Yu, H. 2018, "The U.S. Withdrawal from the Paris Agreement. Challenges and Opportunities for China", World Century Publishing Corporation and Shanghai Institute for International Studies. China Quarterly of International Strategic Studies, vol. 4, no. 2, 1-20.