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Project Proposal: Tracing Connections between Energy Cities

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Research Context

The World Energy Cities Partnership is a self-selecting set of cities that have grouped together to share insights and experiences, based on their status as cities economically dependent to a greater or lesser extent on the energy industry. At the last meeting of the WECAP, questions regarding current and future membership of the partnership were raised. This project seeks to examine the nature of the connections amongst energy cities, making the network itself the subject of its deliberations.

In placing energy cities at the centre of the analysis, this project sets out to counter the 'underlying assumption that the politics and economy of oil are relatively straightforward and that much can be simply explained in terms of the political and economic interests of nation-states and multinational corporations' (Barry 2006). Such an approach does not - and cannot - do justice to the complexity of the 'assemblage', to which energy cities belong, and which comprises the web of multiple actors that have a stake in the energy industries: from institutions such as multinational corporations, cities, universities, and NGOs, to individuals as producers and consumers of energy, as well as the intersecting 'technological zones' (or forms of regulation) that shape and are shaped by the interactions of these and other actors (Barry 2006).

This project takes as its point of departure a challenge issued by Coe et al (2008) in the context of reflecting on how best to study 'Global Production Networks':

Any approach that goes beyond the merely superficial must be able to incorporate the complex actions and interactions of a variety of institutions and interest groups— economic, political, social, cultural—which operate at multi-scalar levels and territorialities and through dynamic and asymmetrical power relationships to produce specific geographical outcomes: the material world in which people struggle to make their lives. (Coe et al, 2008: 271)

Since the only approach that could capture the network in its entirety would be both multi-national and multi-disciplinary, this project entails constructing a network of academics to explore the nature of the world energy city network.

Main Research Questions:

- To what extent are the cities that constitute WECAP connected with one another?

- Which other cities constitute what we might call the Energy City Network (with reference to extensive existing work on World City Networks)?
- How does connectivity manifest itself? (Is this only in ways imagined by WECF itself, or are there other forms of connectivity that should be factored in?)
- Where is the connectivity strongest and where weakest?

Sub-questions / individual research projects:

Phase 1

In its first stage, the project will consist in a number of discrete projects that will seek to work in relational manner to track:

- flows of industry-specific technical knowledge
- flows of knowledge about environmentalism and other related subjects as they impact upon the energy industry
- flows of finance capital
- flows of regulation – contracts, taxation etc.
- flows of disease
- flows of energy (in its various forms)
- flows of people – mobility, migration
- flows of political ideology and influence
- flows of culture and cultural responses / knowledge (art groups, community groups, NGOs etc.)

In taking ‘flow’ as the central structuring metaphor for this project, two questions will need to be addressed:

1. What methods should be employed to quantify and / or qualify these flows?
2. What barriers are there to flow? What disrupts flow, and why? What about ‘friction’ as described by Anna Tsing (2006) in her ethnographic study of global connections? This might suggest conceiving connectivity in terms of a ‘set of co-constitutive circuits and flows [which] intersect as people, things and knowledge flow into and out of spaces, both shaped by and shaping these spaces’ (Hudson, 2008). This opens up the possibility of also exploring breaks in circuits, disjunctions and friction.

Phase 2

In the second research phase, it will be necessary to show how the sets of ‘flows’ studied in phase one intersect, considering how one set of flows might break, interrupt or impede another.

Method:

Two major approaches form the methodological framework from which this project might develop:

1. World City Networks (WCN)
2. Global Production Networks (GPN)

The World City Networks approach, pioneered by Sassen (1992) and Taylor (2004), and taken forward by the Globalization and World Cities group at Loughborough (<http://www.lboro.ac.uk/gawc/>) offers a form of analysis that sets out to trace connections between cities rather than focusing on comparative studies of individual cities.

Meanwhile, the study of Global Production Networks or Global Commodity Chains also seeks to study relationality, taking commodities rather than cities as its point of departure, to 'scrutinize[...] the interconnected functions, operations and transactions through which specific commodities are produced, distributed and consumed in a globalized economy' (Derudder and Witlox, 2010: 1). In so doing, they seek 'to understand the spatial and temporal configuration of inter-firm networks and their implications for regional development' (Bridge, 2008: 389).

Recent work in transnational studies has been aimed at bringing these two approaches together, given their common point of departure in Wallerstein's World Systems Analysis which allows them to offer critiques of 'conventional, state-centric social science interpretations of their subject matters' (Derudder and Witlox, 2010: 1). In the study of energy cities - cities that are linked by their participation in a particular global production network - combining WCN and GPN approaches would seem to make sense.

Up till now, however, neither approach has had much to say about energy. Indeed, a recent article in *Global Networks* a journal of transnational studies, that takes up the question of GPN and the 'extractive industries' notes that the extensive literature on these industries has largely eschewed network-based modes of analysis (Bridge, 2008). This, Bridge argues, is odd, given that 'the intellectual and policy issues which today surround extractive industries ... are uncommonly in tune with a GPN research agenda' (p.389). The lack of this kind of research can also be seen in the study of other energy-related industries.

In terms of WCN studies, certain energy cities do appear in the literature - the main one being Houston, which is cited in a number of studies relating to sector-specific specialization, for example in relation to work on 'Port Cities' (Jacobs et al, 2010). Here, Houston is identified as a port city second only in importance to London, and this is explained by the city's energy portfolio. There is, however, no work on the 'energy city network' itself, as Jacobs et al point out.

In addition to the lack of existing research focusing on energy in both WCN and GPN analysis, there is also an increasing recognition in both fields of enquiry of the need to extend the analysis from a narrow focus on economic connectivity to

encompass work on the social and cultural spheres (e.g. Taylor 2005). This has ramifications for the choice of research methods, as Coe et al (2008) outline:

Not only will multi-national teams be required, but also combinations of expertise in quantitative/extensive and qualitative/intensive research in order to combine an appreciation both of the prevalence of particular structural dynamics and the ability of individual actors to exert their agency and alter the prevailing modus operandi of the GPN (or part of it at least).

The choice of method, of course, will be in part dictated by the scope of the individual research projects / questions which will comprise Phase 1 of the proposed project.

Case Study: flows of cultural responses / knowledge (art groups, community groups, NGOs etc.)

This part of the wider project sets out to bring the 'creative economy' into the picture, examining flows of cultural capital between energy cities. An important element of this project is its commitment to demonstrating how the arts matter in such cities. Accordingly, it will trace debates about heritage and the built environment, as well as examining how trans-national corporations attempt to shape the 'arts scene' in energy cities. It also seeks, however, to explore the way in which the arts have an impact upon economic and political development, by contributing to the construction of 'technological zones', which provide a regulated normative framework that impacts upon the easy flow of capital between, into and out of energy cities.

Andrew Barry (2006: 246), who develops this line of argument, argues that 'increasingly, the oil industry is associated with the formation of a whole series of other technological zones. These concern such matters as the environmental and social impact of oil industry projects, corruption, violence and human rights'. Such technological zones, themselves the product of complex sets of interactions and subject to change and revision, can have important - and unpredictable - effects not only on the pace of economic and political development, but also on the types of development that are pursued and the ways in which developments are carried out.

This project will trace the way in which cultural responses to key issues affecting energy - e.g. energy security, energy transition, energy conservation - shape the technological zones that in turn impact upon life in energy cities. In so doing, it will take up existing literature on role of technological zones in influencing the current trend towards explicit corporate social responsibility policies among TNCs (Gereffi et al., 2001; Hughes et al., 2008).

This project seeks first, to examine ways in which certain types of cultural response may form points of connection between energy cities, and second, to

offer examples of the 'productivity of friction' through tracing counter-flows of knowledge, or friction.

The method to be employed in this study will be mainly qualitative, drawing on interviews and archival research, among other approaches. There may also be a call for a parallel quantitative framework, however, producing, for example, datasets related to authorship in key journals.

A key component of this part of the project is to ask what are the problems and what different solutions might be found if we begin by interrogating what we – and others – understand energy to mean? What happens if we think from the perspective of history or from indigenous communities, for example? And how do / might these alternative perspectives shape particular technological zones that have an impact on the activities of governments (both municipal and state), extra-governmental bodies (such as those formed to look after the economic interests of city-regions) and private companies (from SMEs to trans-national corporations)?

References

Barry, Andrew (2006) 'Technological Zones', *European Journal of Social Theory*, 9/2: 239-53.

Bridge, Gavin (2008) 'Global production networks and the extractive sector: governing resource-based development', *Journal of Economic Geography* 8: 389–419.

Coe, Neil M. et al, (2008) 'Global Production Networks: Realising the Potential', *Journal of Economic Geography*, 8: 271-95.

Derruder, Ben and Frank Witlox (2010) *Commodity Chains and World Cities*. Wiley-Blackwell.

Gereffi, G., et al. (2001) The NGO-industrial complex. *Foreign Policy*, 125: 56–65.

Hudson, Roy (2008) 'Cultural political economy meets global production networks: a productive meeting?' *Journal of Economic Geography* 8: 421–440.

Hughes, Alex et al (2008) 'Global production networks, ethical campaigning, and the embeddedness of responsible governance' *Journal of Economic Geography* 8: 345-367.

Jacobs, W. et al (2010) 'Integrating world cities into production networks: the case of port cities', *Global Networks*, 10: 92–113

Sassen, Saskia (1992) *The Global City: London, New York, Tokyo*. Princeton University Press.

Taylor, Peter (2004) *World City Network: a Global Urban Analysis*. Routledge.

Taylor, Peter (2005) 'Leading World Cities: Empirical Evaluations of Urban Nodes in Multiple Networks', *Urban Studies*, 42/9: 1593–1608.

Taylor, Peter and Robert E. Lang, (2005) *US Cities in the 'World City Network'*, Brookings Institute Survey Series.

Tsing, Anna (2006) *Friction: an Ethnography of Global Connection*. Princeton University Press.