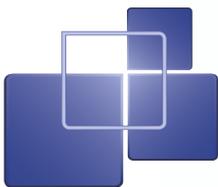




ACW BASELINE SUB-REPORT: Labor Unions and Green Transitions in the U.S.

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Comments invited.

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Introduction¹

This draft baseline report provides an exploratory overview of US labor union proposals and practices regarding a green transition. It focuses, primarily, on national level unions and it does not examine proposals from other organizations. The role of labor unions at the state and local levels as well as a more systematic review of non-union proposals that explicitly address work and workers will be covered in the amplified report. My goal is not to speculate whether a green transition of some kind will take place in the US or whether workers will benefit from such a transition. Rather, one goal is to explore whether workers and unions are striving to be the agents and authors of such a green transition and what political dynamics may prevent or enable them to do so. A second goal is to explore how inclusive or exclusive the green transitions envisioned by unions may be.

The first part of this report clarifies the analytical approach that is employed and, in particular, the interface of sociotechnical transitions, politics, social power and institutions. The second part provides an overview of union strategies by sector or industry. I close with some comments about green transitions that set the agenda for additional research.

I. Sociotechnical Transitions, Politics, Social Power and Institutions

The report adopts a critical sociotechnical transitions approach (STT). The STT approach allows for a systematic investigation of transitional scenarios, recognizing that transitions may unfold in a variety of ways. So it offers some flexibility compared to naming the type of transition up front. With that in mind, the STT approach can be made more dynamic by focusing more systematically on both politics, a gap broadly recognized, and social purpose, a gap less recognized.

I.1. ON SOCIOTECHNICAL TRANSITIONS

POLITICS AND ACTORS. As developed first in the Netherlands (Rip and Kemp 1998; Geels 2011) the STT can be improved by more attention to politics (Shove and Walker 2007; Meadowcroft 2011). David Hess (2012; 2014) and others have suggested that a political coalition method can help us better understand the dynamics of transitions. Minimally this method requires that we identify the key players that may influence transitions – and in our case whether and in what role are unions likely to be involved. Beyond that we also need to identify the balance of power within and the priorities of these coalitions (Betsill and Stevis 2016).

¹ This report draws extensively on the work of the Labor Network for Sustainability (<http://www.labor4sustainability.org/?s=us>) and the comments of LNS member Jeremy Brecher. I am also grateful to Linda Clarke, Fred Steward, Colin Cleeson, John Calvert, Steve Jefferys, Paul Hampton, Graham Petersen and the other participants in the September 21, 2015, workshop organized by the Policy Studies Institute on the Institute for the Production of the Built Environment, Westminster University. The present version was slightly edited in early April 2016 and reflects my own interpretation.

It is tempting to treat social actors as unchanging entities or as fully interpretable by their position(ality) in the political economy. The view employed here is not that unions are infinitely malleable during particular points in time but, rather, that they have their own histories and internal dynamics. Some analysts, for instance, have differentiated between business, social and social movement unionisms and have used this analytic as an exploratory tool. More immediately, changes within unions do explain their behavior in a number of instances. That has been the case with the UAW whose environmental attitude has been influenced by changes in leadership.

SOCIAL INSTITUTIONS AND SOCIAL POWER. Actors are embedded in and constituted within social institutions. An account that focuses on politics and political alliances cannot treat actors as interest groups that come to the arena independent of and equal to each other. As Zeitlin (1987) has suggested, the history (and I add the politics) of unions require that we see them not as separate entities but as part of industrial relations. The industrial relations of particular countries, in turn, are the product of historical struggles and compromises that create path dependencies that variably enable and constrain the participating actors. Varieties of capitalism (Hall and Sockice 2001) and Varieties of Business Systems (Whitley 2007) are two ways to capture the various configurations.

SOCIAL PURPOSE. STT could also benefit from more attention to social purpose, i.e., the political economy a particular actor or coalition envisions. Here one has to take into account power relations amongst actors but, also, the preferences of unions. In the U.S. many are largely supportive of capitalism, seeking their “fair share” of its spoils, some seek to reform it, proposing an industrial policy along with a safety net, and fewer propose more transformative options centering around a broadening of the public sphere. Most are currently on the defensive but some are on the offensive.

Accordingly, while it may not be useful to name particular transitional configurations in advance it may be desirable to name emergent configurations. There are significant differences amongst proposals in terms of the paths they seek to change or reproduce and the futures they envision (Dryzek 2013). Here varieties of Sustainable Development (Dobson 1996; Connely 2007) Ecological Modernization (Christoff 1996; Crowley 1999; Jaenicke and Lindemann 2010), Industrial Ecology (Cohen 2006; Deutz 2009), and Green Growth/Capitalism (Jacobs 2012; TienHaara 2014) are useful to the degree that they capture the particular socio-historical configurations that various transition trajectories represent. The socio-technical approach itself should not be equated with any particular outcome and, in my view, it has not been historically associated with transformative political economies, whether social, socialist or steady-state (Jackson 2010; Demaria et al., 2013; Foster J. 2010). For that reason its critical and heuristic use here allows for a broader scope in terms of social purpose.

In general terms we can create a continuum from market-based transitions (e.g., eco-efficiency, industrial ecology, weak sustainable development and weak ecological modernization) that generally affirm neoliberal capitalism, to transformative transitions (e.g., steady-state, de-growth, social ecology, socialist ecology) that embed the economy within social and ecological priori-

ties. In between we can place strategies that seek to reform and temper the impacts of capitalism and developmentalism (e.g., stronger forms of environmental regulation, sustainable development or ecological modernization). In all of this we should pay close attention to the interface between goals and instruments. For instance, benefit-cost analysis may serve different goals, depending on how it is framed and used, and by whom (Revesz and Livermore 2011; Lohman 2009). We should neither treat tools as mere tools nor assume that they play the same role regardless of power configurations.

RELATED APPROACHES. For both historical and practical reasons it is worth placing the STT approach in relation to related approaches. An earlier relative is the Socio-Technical Systems (STS) approach, developed in the UK after WWII (Trist 1981). Whether one agrees with it or not some analysts working within the STS approach made work and workers central to its analysis, both at its origins after WWII (Trist 1981) and in its transition to the US during the 1980s and 1990s (Cohen-Rosenthal 1997). The transfer of the STS approach to the US has been contentious and properly criticized but it has also been employed by one of the first systematic efforts to explore the relations between work and the environment (by a 1990s project based at Cornell and entitled Work and Environment).

A more recent relative is the socio-ecological approach that emphasizes adaptation and resilience and which plays a leading role in environmental and climate politics. This approach has also been criticized for its limited engagement of social power and justice but its key concepts are behind various proposals of relevance to work and communities, as well as climate change policy.

All three perspectives share a systems methodology. On one hand systemic methodologies offer a holistic view. On the other hand they have not transcended their origins in the physical and natural sciences. As a result, they are less able to map social power and institutional relations. Hence the utility of paying close attention to the joint dynamics of political coalitions and institutions.

1.2. ACTORS

In what follows I provide a theoretically informed lay of the land in the USA with particular focus on those actors that have made green proposals. I try, in a preliminary fashion, to go beyond aggregate categories in order to name or delineate those entities likely to be involved in green alliances with unions. The goal here is to identify labor's likely allies but, also, their priorities and dynamics. The Democratic Party, for instance, has long been an ally of unions but its internal dynamics make it a very undependable one. I start this account with an overview of labor unions.

LABOR UNIONS. Labor unions, whether in the USA or anywhere else can be as influential as their resources and strategies. The more limited their institutional and organizational resources the less likely they are to lead alliances that include more powerful actors. The less forceful and proactive their strategies the less likely they are to frame and lead the debate.

Private sector unions (which accounts for most workers) have experienced precipitous decline over the last three decades and attacks on public sector unions, which had held up until recently, are growing. It is important for analysts and practitioners from other countries to understand the ideological and bitter anti-unionism that is prevalent within the US business world and its allies. Moreover, as I mention below, labor does not have a political party that shares some of its priorities and existential concerns. Not only is union density quite low (around 6% for private workers and 11% overall) but, also, only those workers that are unionized are covered by collective agreements. The USA does not have laws and processes that allow/require unions, states and business to negotiate sectoral or national agreements. For example, the USA and France have about the same union density but French national and sectoral agreements cover over 90% of the workforce. Thus there is serious divergence from Continental Europe and closer to the UK and Canada – two other examples of liberal capitalism.²

More so than in European countries, US unionization is fragmented. Arguably the fragmentation is less ideological than in France, Brazil or India. Rather it manifests itself in multiple unions populating every sector and quite frequently the same industry and the same company. Moreover, many unions are becoming general unions, i.e., they represent workers from various lines of work (Moody 2010). The USW, for instance, represents workers in manufacturing, extraction and education, amongst other. This is partly due to growth by agglomeration and partly due to unions organizing across sectors to stem decline in membership.

What are the implications of this fragmentation? First, internal fragmentation leads unions to pursue competing priorities or prevents them from taking a position (see Kojola 2015 on Keystone XL Pipeline; interview). This may be the reason why only three US unions had a statement about the 2015 Paris COP negotiations on their website – and one of them was skeptical.³ Second, various unions may have contracts with the same corporation, causing tensions along the production network due to the timing of the contracts and plain differences amongst unions. It is for this reason that coordinated bargaining – institutionalized mostly in railroads – is an important and challenging task for unions.

Many of the sixty or more national unions are organized in trade departments affiliated with the AFL-CIO. What is significant here is that all of the active departments involve many of the same construction, infrastructure and transportation unions (or elements of unions) that have been skeptical of green transition policies (even when they may agree that climate change is taking place).

In addition to their individual national level organizations and the trade departments, there is also organization along jurisdictions. Locals from different unions are likely to participate in city, county, regional or state labor arrangements. Sub-federal units may be more or less active, depending on union density and local leadership. This study will be expanded to provide a more comprehensive overview. Finally, locals of various unions are often large and active and, on occasion, at odds with the national union. The green transitions practices of sub-federal unions will be included in the complete report.

² Australia diverges in that there is significantly more coverage and NZ because coverage is less than unions (2010 data – see Schmitt and Mitukiewicz 2012).

³ This does not reflect attendance. Many US unions sent representatives, including the AFL-CIO.

In addition to their current numbers and ability to influence the green agenda unions also possess an important resource in their pension funds (http://www.workerscapital.org/images/uploads/CWC_climate_change.pdf). Phil Angelides, one of the leaders of the Apollo Alliance (now part of the BlueGreen Alliance (BGA)) was the treasurer of the state of California and ex-officio member of the boards of the first and third largest retirement funds in the country. Yet, despite the fact that the AFL-CIO was one of the movers behind 'workers' capital' it is not evident that pension funds have played a role in driving the green transition.

BUSINESS. US business is renowned for its hostility toward collective representation and workers rights. As I note below it has close allies in the national Republican party and the right-to-work movement. One cannot understand US labor politics and concerns without realizing the virulent anti-unionism of capital and its allies. Over the years business and labor scholars have debated whether US investment abroad is leading to global convergence towards US industrial relations (IR). There is no firm answer yet but there is clearly strong evidence in that direction. Over the last decades there has also been some debate over the importation of foreign IR into the US. During the 1980s and 1990s it involved the adoption of Japanese collaborative and paternalistic "corporationism". Some examples of it survive in Japanese corporations in the US and some shorter-lived US experiments (NUMMI and Saturn).

The impact of US capital is important for various reasons. The US is the largest economy in the world, a preponderance that is even more apparent in research and development and leading sectors. What is significant to know is that the US is also the largest single recipient of FDI (Levinson 2015) and that there is evidence that foreign companies in the US (including European ones) are behaving like US companies in their disdain for unions (Fichter and Stevis 2013). The Global Framework Agreement (GFA) strategy has been a means to prevent European companies from escaping European IR but it seems likely that key European companies are using the US to whiplash unions back home and drive down labor standards.

FDI is also important because many of the major players in green manufacturing, green energy installation and green research and development are foreign, including European companies such as Gamesa, Vestas, Siemens, Iberdrola and others. Not all of these companies have positive relations with US unions and unionization in the renewables sector is very low (according to a union official less than 1%). Siemens, for instance, has fought tooth and nail to avoid the implementation of its GFA. Unions have had some success but given the company's diverse portfolio their success is not primarily in the green sector. Gamesa has long been a poster child and has been highly unionized. In early 2015 it signed a GFA with environmental provisions. Here we see a clear interface between green and good (union) jobs. Vestas (in Colorado) continues to be non-unionized.

Green capital, the most likely ally in green transitions, is growing in the U.S. as it is elsewhere. In addition to keeping in mind that there is nothing naturally pro union within green capital we also need to differentiate amongst different types of capital. At the industrial level there are various corporations, like the ones mentioned above, and business associations that promote the interests of the renewables sector, such as the American Wind Energy Association, the Solar Energy Industries Association, the American Council for Renewable Energy, and the Solar Electric Power Association. In addition there are traditional manufacturers, such as steel producers or construction material producers and sellers,

who are seeing the potential of green products. Large box stores (Home Depot, Lowe's) are major sellers and installers of solar panels. In addition to manufacturing and utilities there has also emerged a significant green financial sector. Some financial entities specialize in renewables but most are traditional financial entities that have moved into renewables. The financialization of the world political economy is also evident in the sector, increasingly constraining the autonomy of manufacturers while driving extreme hostility towards unions.

STATE(S). The US has not had a tradition of direct state ownership and parastatal agencies. But the federal state does play a direct role in a number of ways and an indirect role in even more ways (GAO 2014). Directly the federal state finances much of the interstate infrastructure as well as the military – both major sources of investment and consumption. Research and development by the federal laboratories – the incubators of much innovation and commercialization – is proving significant (Block and Keller 2011). Many federal agencies also engage in various programs, often in Public Private Partnerships but controlled by the agency, especially in the case of Department of Defense (DOD). Indirectly the federal state exercises influence through the financing of a great deal of primary research as well as through the transfer of resources to states and localities for various activities, e.g., health, education, training, infrastructure and energy. Additionally the federal government influences the economy through incentives and disincentives (taxes, mostly).

There has been some debate as to whether the US federal state has an industrial policy but a number of analysts have highlighted the role of the state even in a country as liberal as the US. A report on green programs by the US government agencies demonstrates that most of them are in the DOD, followed by DOE (GAO 2014). In a recent report the BlueGreen Alliance has made the case that unions ought to collaborate and focus on the Department of Commerce (DOC) – a relatively smaller agency. The reasoning here is that the Department has a regional infrastructure that can facilitate training and incubation and that it is ideally situated to measure impacts on climate (through the agencies under its jurisdiction) (Gordon, Borosage and Pugh 2013). The EPA plays a significant role through regulations, e.g., the Clean Power Plan policy. The Department of Energy (DOE) owns many of the federal labs and also finances various experimental technologies – mostly in nuclear and clean coal. It also has more means than DOC and can promote transition policies (see discussion of energy unions below).

The role of sub-federal states has been important since the beginning of the Republic. After WWII Southeastern States adopted an aggressive strategy of modernization and attraction of investment in manufacturing and services – first from other US states and increasingly from abroad. Their strategy was largely one of incentives such as tax breaks, zoning rules, infrastructure and labor procurement.

Since the neoliberalization of the 1980s more states and cities/counties have adopted aggressive economic development policies. In a number of cases sub-federal actors do play a role in research and development as well as commercialization – often in collaboration with national research labs and federal agencies.

The role of major sub-federal states is significant both in terms of the overall climate change policy of the US and in terms of its implications for unions, e.g., California's Global Warming Solutions Act of 2006 (AB 32) (Buffa et al. 2008). California's leading role is evident at the Paris COP. State level Renewable Energy Standards have spread around the country and have important implications for

labor unions (Hess 2012; Giannakouros and Stevis 2014 on the case of Colorado). The BlueGreen Alliance makes the argument that a US green economy has to be the result of regionally appropriate strategies (that produce synergies) rather than one undifferentiated national strategy (Gordon, Borosage and Pugh 2013). They do not reject federal standards but argue that the various regions play a different role within the country's and the world's political economy. It does not make sense, for instance, to treat California, which is a highly industrial state, similarly to the Intermountain West states, which are more extractive.

ENVIRONMENTALISTS. American environmentalism has historically had a very strong naturalist bent, i.e., it has emphasized the preservation or conservation of nature and natural resources. Even so there has long been a strand that paid attention to the occupational and health impacts of industrial and extractive production – often operating in parallel with what the broader public would think as environmentalism. One outcome of this thread has been Occupational Health and Safety (OHS) politics and policy (Noble 1986). This movement has allowed some important collaboration between unions and environmental organizations focusing on toxics and public health (Mayer 2008; Slatin 2009)⁴. In addition to the OHS tendency a broader social environmentalist tendency has grown since the 1950s in response to unregulated industrial practices and nuclear weapons (Gottlieb 2005). That tendency is often associated with Rachel Carson and Barry Commoner (the latter was involved in collaborations with unions and workers) but one should not underestimate the work of social ecologist Murray Bookchin whose work on the perils of industrial civilization predated Rachel Carson's 1962 *Silent Spring* and whose 1960s insights about climate change sound as if they were pronounced today (Brecher 2015a, 11). Unionists and environmentalists influenced by social ecology remain very active in green alliances (Ongerth 2015).

During the late 1960s and early 1970s there was a moment during which unions and environmentalists seemed to be coming together under a common umbrella. The crises of the 1970s and the emergence of neoliberalism in the 1980s allowed capital and its allies to strategically divide the two movements using the “jobs vs environment” argument. During the 1990s mainstream environmental groups started collaborating with unions, again, as well as paying closer attention to the emerging environmental justice movement (Minchin 2003; Rose 2003). At this point in time five environmental organizations have joined strategically with ten labor unions in the BlueGreen Alliance and others have continued to engage issues of interest to workers (still others remain largely naturalist). This is an important rapprochement as it makes the “jobs vs environment” framing still employed by corporations and states (and some unions) less of a dividing issue. But, it is worth noting that some of the environmental organizations that are members of the BGA are considered as the par excellence proponents of market based environmentalism (see Skocpol 2013; but see also debate at <http://grist.org/climate-energy/what-theda-skocpol-gets-right-about-the-cap-and-trade-fight/>).

Yet, even though many environmental organizations have programs on issues that are shared with unions – climate change, toxics, energy policies, transportation – only one has an explicit labor program (research still in progress). Few unions also have an explicit environmental program/department (other than OHS) that connects leadership, middle level and local unionists. It is fair to say that the BGA

⁴ See Charles Levenstein, Robert Forrant and John Wooding (eds). *Work, Health and Environment Series*. Baywood Publishing Company Inc.

plays such a role but without the internalization of environmental and labor priorities by unions and environmentalists, respectively, the BGA is not sufficient. A review of the websites of the unions and environmentalists that are members of the BGA shows very clearly the division of labor amongst them with climate change being front and center on environmental websites and almost completely absent on union websites.

As one moves beyond conventional environmental organizations and in the realm of toxics, health, risk, and environmental justice the relations between unions and environmentalists are more profound, if not always smooth (Mayer 2008; Slatin 2009; Ongerth 2015). Lois Gibbs, the leader behind the Love Canal and until recently the Executive Director of the Center for Health, Environment and Justice, confirmed this in a personal discussion. The collaboration of the International Longshore and Warehouse Union (ILWU) with local communities and environmentalists in opposition to an oil and a coal terminal on the West Coast is also worth noting. These relations will be examined more thoroughly in the final report.

THINK TANKS. The two major US political parties (Democrats and Republicans) are very weak and internally diverse. Policy proposals, therefore, emerge from think tanks and policy advocacy organizations associated with particular elements of these broad alliances called parties. The difference between think tanks and policy advocates is often difficult to make, as all think tanks have political preferences. What is more important is to connect these various think tanks with particular networks and coalitions within and across parties.

Michael Renner of the WorldWatch Institute has published proposals on green jobs since 1991 (Renner 1991). He was also the lead author of the ILO, UNEP, ITUC Green Jobs report (Renner et al. 2008). Unions and Environmentalists were the main forces behind the first comprehensive green economy proposal (Barrett and Hoerner 2002; Rose 2003)⁵ largely focused on energy. The Tellus Institute played a leading role here as it does now with its Great Transition Initiative. The Apollo Alliance (an alliance of unions, business, green capital and politicians) published its industrial policy programs in 2003 and 2008. The Center on Wisconsin Strategy (<http://www.cows.org>) played a key role in forming the Apollo Alliance along with the Institute for America's Future. Good Jobs First has published path breaking works on urban development as well as on industrial policy (Apollo Alliance and Good Jobs First 2010) and good jobs (Mattera 2010). The Center for American Progress (CAP) picked up the green growth agenda, in collaboration with the Political Economy Research Institute, which it first sought to present as a way out of the Recession (Pollin et al. 2008). The CAP continues to prioritize green growth (Pollin et al 2014). Berkeley's Institute on Labor and Employment (and its Donald Vial Center on Employment in the Green Economy) plays a visible role, as well. Finally, the Labor Network for Sustainability and Trade Unions for Energy Democracy produce original research and serve important advocacy roles within the labor movement.

1.3. Institutions

THE POLITICAL ECONOMY OF THE US. The US is the par excellence liberal capitalist country in the world.

⁵ This is not to be equated with the first statement or study. Unions and environmentalists have been proposing ways to a green economy since the 1970s (Grossman and Daneker 1979). The USW adopted a climate change strategy in 1990.

The social welfare state is limited and capital and its allies in society and the state are largely open about their disdain for collective representation or social regulation. Instead, they advocate in favor of regulations intended to weaken countervailing powers and amplify the structural and instrumental powers of capital. Earlier I mentioned that the US also serves as a means through which European corporations can escape European IR and, in fact, challenge it.

A key characteristic of US political economy is the role of federalism. During the 19th century federalism divided the industrializing Northeast from the extractive export economies of the South and the West. During the post WWII period the Southeastern US adopted a strategy of economic development based on attracting investment first from the rest of the US and then from the rest of the world. One of its selling points was the weakness of unions – something that it was able to do by fragmenting US labor law through the ‘right to work’ policy. During the early 21st century this strategy has spread throughout the country, including the industrial Midwest. So, at this point in time various states are engaging in competition for investment with the ‘right to work’ states touting their weak unions. Some, like Texas, will pay for attracting any investment, including ‘green industry’. Others, such as California and Colorado, try to fuse the attraction of investment with some type of climate and environmental policies. That route is hard but not impossible – so not everything is gloom and doom. The point, however, is that the green economy is currently the target of predatory competition amongst states. One can see that as a thousand flowers blooming or as a fragmentation of resources and a road to oversupply of green production more so than a green economy.

INDUSTRIAL RELATIONS IN THE US. As noted above, the ‘unit of analysis’ of this report is not solely individual actors but, even more so, the institutional arrangements that bring them together. This is a point, then, to talk about industrial relations which in much of Europe involve states, unions and capital. This is not the case in the US and other liberal capitalist countries which do not have corporatist traditions similar to Continental Europe or Latin America.

US unions can be placed into two broad categories: those that unionize employers and those that unionize labor markets. In the first category we find industrial unions in manufacturing, transportation and services that tend to have collective agreements, sometimes national in scope, with individual companies. In the second category we find craft unions in construction (including manufacturing) and increasingly in certain services whose goal is to ensure that those hired for various projects belong to a “free standing” union. The goal of these unions is to ensure that employers choose or are forced to hire unionized labor.

The relations between unions and corporations in the first category are based on collective agreements that are negotiated once a union wins certification and negotiates an agreement. While there are some national labor standards – such as working time, minimum wage, occupational health and safety and non-discrimination – the main body of US IR is to be found in agreements between unions and corporations. Only in railways and airlines and in military production is the role of the state a bit more pronounced. During the height of US unionism (late 1940s to late 1970s) multiemployer agreements allowed broader cover. Such agreements are rare (if at all) today with the exception of building and construction. In this sector the relations between unions (individually or in groups) and groups of contractors are close and institutionalized, especially with respect to large projects and where unions

are stronger. As a result, the tactics and strategies of unions are often influenced by the preferences of the employer groups they are collaborating with. Generally, then, industrial relations in the US are antagonistic and firms hostile to unions. But, there are also instances of long term collaborative relations between particular corporations and particular unions, e.g., United Automobile Workers (UAW) and US auto manufacturers, Teamsters and UPS, Communications Workers of America (CWA) and AT&T, International Association of Machinists (IAM) and Boeing and so on. As a result, these companies may ally with unions on an issue by issue basis. The only one that involves collective bargaining across the board (that I am aware of) is the Kaiser Permanente Partnership. Iconic collaborative arrangements such as NUMMI and Saturn were victims of the Great Recession. As discussed below collaborative relations are more profound in the building and construction sector.

What is worth noting is that, in a climate of neoliberalization, unions are more likely to “protect” union-friendly corporations. For example, one of the Teamsters’ major concerns is how to keep UPS (unionized) competitive with Fedex (non-unionized). The implications for green transitions are evident in that unions may be willing to trade good industrial relations for climate policy. It is plausible, for example, that LIUNA left the BlueGreen Alliance not because of the number of jobs of the Keystone XL Pipeline (the number is small) but because of the implications of alienating a company (TransCanada) with which a number of unions had negotiated a Project Labor Agreement, in 2010.⁶

There is no guarantee that a corporatist system will adopt a green transition. In a neoliberal economy (which unions have generally accepted and supported) the possibility of a systematic, political economy wide transition is even less likely. Rather, what we can hope for is a strong enough green alliance that can overcome opposition during a window of opportunity. The American Reinvestment and Recovery Act of 2009 was such an opportunity that managed to put the green transition on the agenda but did not tip the balance. Current infrastructural investments are very welcome by unions and proposed infrastructural investments have motivated many unions to endorse Hilary Clinton. Even though these expenditures (like ARRA) do have some green provisions, on balance, they lock in the existing infrastructure and grey political economy. Most of the funds are intended to fix the highway system rather than reorganize the transportation system and, thus, the overall organization of space.

CLOSING COMMENTS. The first part of this draft report has provided the contexts within which union initiatives have and can take place. It does not simply serve to describe the lay of the land but it also aims to identify the agential and institutional dynamics within which unions operate. In that sense it outlined a causal function. More nuanced and time sensitive research, now in progress, is necessary in order to determine the alliances that are likely to emerge or be activated at particular windows of opportunity. The current dynamics, for instance, are different from those at the beginning of the Great Recession. Just before the Great Recession there was a strong sense that a new Democratic Administration could adopt elements of a green transition. As the recession unfolded the proposals morphed into responses to it. ARRA did include significant but not enough elements of a green transition. At this point in time conjunctural developments, like the election of Trudeau, can be best exploited to advance a green and just transition if there are social forces able to form countervailing coalitions.

⁶ Project Labor Agreements are agreements between unions and contractors that the latter will employ largely union labor for the duration of a project. They are negotiated in advance of the project.

II. Unions and the Green Transition⁷

In Part II.1 I provide an overview of labor union practices. Part II.2 will focus on the proposals and practices of the BlueGreen Alliance, the most visible green transition force within the labor movement. The draft report focuses on energy, building and construction, manufacturing and transportation which, collectively, account for the majority of climate changing emissions. Food production, increasingly recognized as major source of such emissions, and services will be included in the amplified report.

It is evidence of the challenges that US labor unions are facing with respect to climate change that only three unions commented, on their website, on the December 2015 Paris COP and one of them is in favor of low-emission fossil fuel technologies. The Building and Construction Trades Council does have a short item on the views of Bjorn Lomborg who is critical of strong climate policies and a supporter of market solutions. A number of websites reported their support of Hilary Clinton who had announced an ambitious infrastructure program and a few reported their opposition to the Obama Administration's Clean Power Plan. The BGA did include a brief statement based on its comments to the US negotiator as well as a short report on Just Transition from the COP but none of the unions that are BGA members or TUED partners had anything on the COP. One union does have a link from COP prominently displayed. And one other union displays prominently its opposition to oil and coal terminals on the West Coast and its collaboration with environmentalists and community activists.

II.1 SECTOR OVERVIEWS

SECTORS OR PRODUCTION NETWORKS? With these provisions in mind US unions can be categorized by sector: energy, manufacturing, building and construction, transportation and infrastructure, services, and so on. What becomes apparent is that once we pay closer attention it turns out that we are dealing with 'production networks', i.e., networks between various unions which participate in the extraction, transformation, distribution and consumption/use of products (Dicken 2015, ch 3). The national production networks, in turn, are part of global production networks. The production network approach is more dynamic as well as broader than the commodity chain or value chain approaches (which have their advantages) to the degree that it focuses on politics along production networks. But, like the other approaches, it tends to be economy centered (as distinguished from political economy centered), albeit less so.

The sector vs production network has practical implications. For instance, one cannot understand the politics of coal without understanding the relations between communities, corporations, politicians, railroads, utilities, and unions – both local and extra local. On the other hand putting coal and natural gas unions under the same sectoral umbrella is to obscure the life and death struggle between coal and gas (as well as between natural gas and nuclear power).

ENERGY. It goes without saying that energy choices are key to climate change. The unions in the energy production network include not only those workers in extraction – an increasingly smaller number

⁷ This part draws extensively on LNS's Labor Landscape Analysis and associated material. I cannot underscore enough the value of the LNS's work for this report. See <http://www.labor4sustainability.org/labor-landscape-analysis/>

due to automation and new forms of mining- but also those in the transportation of energy (trains, pipelines)⁸, the production of energy (power plants, including nuclear plants), the distribution/uses of energy (electricity grid; utilities), and the managements of wastes (nuclear wastes, decommissioned plants). The number of workers in the energy production network has grown smaller over the years but their significance is noteworthy. Moreover, some of the unions involved, such as the International Brotherhood of Electrical Workers (IBEW), have kept their numbers. Amongst unions that organize energy workers only the USW and the Utility Workers of America are members of the BGA.

The key strategy amongst the unions within this production network has been to render existing sources of energy climate friendly within an “all of the above” approach. In the case of coal that has been manifested by support of ‘clean coal’ technology and carbon capture and sequestration and in the case of nuclear power in the building of more nuclear reactors, hopefully of a new, less risky kind. In general, then, it is not surprising to see unions, such as the Laborers International Unions of North America (LIUNA) or IBEW, promoting their activities regarding the range of energy sources – from coal to renewables.

The EPA’s Clean Power Plan policy has made apparent the hesitations amongst unions in the energy sector, even though their opposition is not generally based on objections to the threat of climate change but, rather, to the absence of transitional policies. The United Mine Workers of America is strongly opposed as are the IBEW, the Boilermakers, and the Utility Workers of America (the latter a member of BGA). The latter two, along with the Steelworkers, are participating in a Department of Energy (DOE) program whose goal is to create job opportunities in the course of this process. To underscore the complexity of relations the IBEW is suing the EPA over the Clean Power Plan at the same time that it is also shaping the Obama Administration’s Pollution Plan. In fact, IBEW is properly proud of its net-zero training center. Here is evidence of active support of renewables but within an all-of-the-above strategy.

That the energy sector unions have some ways to go in the direction of climate policy is also evident in their opposition to various anti-fracking initiatives during 2015. In both Colorado and Ohio, for instance, unions were part of alliances to prevent and defeat such initiatives. The casting of fracking in terms of methane leakage and health impacts (important as they are) obscures the fact that natural gas is becoming a permanent and central element of the energy scene – rather than a bridge fuel. The BGA also places a great deal of emphasis on the safe extraction of natural gas, an approach that reflects both the interests of some of its union members and the active role of Environmental Defense Fund in support of making natural gas a mainstay of US energy.

CONSTRUCTION. The building and construction unions are craft unions that coordinate through North America’s Building Trades Unions (NABTU) and before that the Building and Construction Trades Department of the AFL-CIO. NABTU brings together 14 unions (including IBEW and the Teamsters) and about 3 million workers in the US and Canada. The members of NABTU that are also members of the BGA are the Plumbers and Pipefitters (UA), the Sheet Metal Workers (SMART) and the Bricklayers.

Most residential construction employs non-unionized workers this is not the case with large projects that

⁸ See efforts of railworkers and environmentalists to find common ground. RWU at <http://railroadworkersunited.org> and <http://peoplesworld.org/rail-workers-environmentalists-to-launch-week-of-protests-vs-oil-trains/> and <https://www.jacobinmag.com/2015/04/railroad-environment-climate-change-labor-union/>

tend to employ unionized workers. This is most likely in projects that involve federal funds. Thus, it is not surprising that unions in the construction and transportation sectors are very supportive of the Transportation bill now in front of the President. Many of them also announced their support for Hillary Clinton for the Presidency immediately after she promised infrastructural expenditures if elected president. These proposals do include some funds for greening US infrastructure but they are primarily intended to fix the existing infrastructure of highways and railroads, which is not especially green.

U.S. building and construction trades have been at the center of the jobs vs environment debate. To a large degree this is due to characteristics of industrial relations in the sector that make workers quite vulnerable. Contractors and unions have established close relationships, despite frequent contentious cases (see <https://www.youtube.com/watch?v=YeylOEDeTdg&feature=youtu.be>). These relations involve various institutionalized forms of collaboration, including training, and what are known as Project Labor Agreements (see <http://www.ongil-mc.org/get-informed/news/pipeline> and, in particular, <http://bit.ly/114s7XO>). The latter are agreements between contractors and unions regarding the use of largely union labor in specific projects –usually large projects. Contractors commit to hiring union members for the duration of the project but these workers are not their employees. As a result building and construction trades are supportive of management because employment opportunities are episodic, particularly during hard times, and because good relations with willing contractors ensure that unionized workers will not be fully displaced by non-unionized workers in an aggressively neoliberal country.

The frustration of building and construction unions over the rejection of the Keystone XL Pipeline is understandable since these unions signed a PLA with the company in 2010 and they also have a national agreement to maintain pipelines. One could also argue that TransCanada's commitment during the height of the financial crisis is something worth honoring. Nonetheless, the pattern of supporting the employer regardless of the project has such a long history that cannot be explained by reference to hard times. During the 1970s and 1980s building and construction unions (but also some manufacturing and energy unions) were at the forefront of support for nuclear energy in the U.S. and vigorous proponents of the "jobs vs environment" dilemma. Today they are at the forefront of rebuilding infrastructure (a desirable goal) but one that does not move the country towards more public transportation and density, instead reproducing and aggravating sprawl.

These close relations do allow the possibility of coupling training with greater employment opportunities as the implication is that contractors will hire jointly trained unionized workers. It is not clear whether unions can break away from the priorities of the dominant builders' associations –some of which may well be greener with respect to their specific practices. The existence of strong relations between unions and corporations may well be leveraged towards greener practices, under propitious circumstances. What is missing here is that of spatial reorganization – a key element if a green transition is to take place.⁹

MANUFACTURING. Manufacturing unions have been the backbone of US unions since the 1930s but even those that still have a significant manufacturing base also unionize other constituencies. USW, for instance, accounts for most unionized miners, other than coal, in the US. IBEW represents construction, infrastructure and manufacturing workers. CWA represents both communication and manufacturing

⁹ See Good Jobs First at <http://www.goodjobsfirst.org/smart-growth-working-families>

workers. As a result manufacturing unions are also subject to crosscutting internal politics. The USW, the CWA, and the UAW are members of the BGA.

The US has gone through a relative industrial decline, e.g., the industrial sector is now a smaller part of the economy than it was for much of the 20th century. Yet, in absolute terms it has held more or less at the same level with noticeable decline in employment during the last twenty years or so. Manufacturing production in the US is the second largest in the world and a great deal of FDI is in manufacturing. Moreover, much of China's manufacturing is by US companies for export to the USA (See Levinson 2015 on US manufacturing in international perspective).

On balance, the major problem for unions is not simply that the number of manufacturing jobs has declined but that previously unionized companies have escaped unionism through outsourcing and offshoring and a strategy of casualization and precarity – particularly evident in the supply chains. This is all the more problematic since US manufacturing uses more national content than any other country. It has long been recognized that the manufacturing sector may be best situated for a transition to a green economy, certainly compared to the energy sector and the construction sector (Goodstein 1999). Manufacturing workers can build the key elements of a green economy (and perhaps do that through green processes) such as wind turbines and towers, solar panels, more efficient cars, the elements of the energy grid, green construction materials, green communication materials and so on. But they can also produce gray products such as fertilizers from natural gas (a growing sector in the US) as well as private cars more than public transportation (the US is behind France, Japan, Germany and China in this area).

Whatever the green potential of the sector, not all manufacturing unions are aggressively pursuing green product or green industries. Some are hesitant because they are closely tied to the non-renewables sector (e.g., IBEW and Boilermakers with nuclear power). Others, such as IAM, may have other reasons but their close ties with the airline manufacturing industry (especially Boeing) may be a factor until and when biofuels become dominant.

The USW is one union that has been aggressively behind green manufacturing and the moving force behind the BlueGreen Alliance. The USW (and the Apollo Alliance and the BGA) see a great potential in green manufacturing, particularly one that brings whole supply chains back to the US (e.g., batteries). One of the BGA's initiatives, for instance, has been the Clean Energy Manufacturing Center which it has set up in collaboration with business. The goal of the Center is to offer training and advice that will facilitate a green transition. Although it is not as active currently, it is an important initiative that requires further study. The USW is also closely tied to Gamesa, a wind power manufacturer, and has developed some other interesting forms of collaboration, e.g., with the Spanish Mondragon Cooperative.

Another partly manufacturing union that also sees the opportunities of a green economy – particularly via more efficient communications – is the CWA and its industrial component IUE-CWA. The calls of connecting the whole country through high efficiency and capacity broadband is compelling, both in terms of being part of the country's political economy and in terms minimizing personal travel to stores (but increasing delivery travel).

After many decades of resistance the UAW has finally accepted nation-wide efficiency standards. Without such standards it is not possible to have a climate policy and a green transition in the US. So long as private transportation continues to dominate, higher standards are not enough.

TRANSPORTATION. Transportation unions can be divided into those that move products and those that move people. Rail transportation is key to the economy as is trucking. Seaborne transportation accounts for the overwhelming majority of international trade in goods and has become quite concentrated in a few ports. Air transportation, particularly commercial, is also growing. The largest and most influential unions, therefore, are in the commercial sector and include the Teamsters, and the railroad unions (which bargain with the National Carriers Conference Committee under the Coordinated Bargaining Group umbrella). The Teamsters were a strong supporter for a period of time but they have distanced themselves in recent years. Unions in public transportation (including schools) are influential in a few cities where there is significant density. One of them, the Amalgamated Transit Union is a member of the BGA.

Some urban transportation unions have been at the forefront of climate policy, breaking with other unions over the Keystone XL Pipeline, but that is not the case with commodity transportation (railways, tracks and vessels). The Teamsters finally moved away from the ANWAR Alliance that promoted drilling in the Arctic and recognized the need for climate policy but they have not joined the BGA (with which they collaborated closely on recycling and other proposals). It is worth noting that the union has spearheaded a very innovative port campaign that can serve as a model for other such campaigns (Justice for Port Drivers at <http://justiceforportdrivers.com>).

This campaign is about the working conditions amongst port drivers but it has an important environmental component because about 75,000 drivers pick up products from the ten ports that account for 90% of containers going in and out of the US. 87 million people live near major ports. Of course railways are also central here. Labor conditions exacerbate misclassification of drivers, make it difficult to buy trucks with new technology and cause serious spots of pollution (<http://laane.org/downloads/From-CleantoClunkerReport.pdf>).

The strategy calls for proper classification, help with updating trucks and unionization. This integration of the environment is organic to the campaign as is the proposal that better working conditions and an end to misclassification will make it easier for truckers to upgrade their trucks, thus lowering pollution. Whether this is a purely tactical or strategic commitment, this is the kind of strategy that does fuse social, community and environmental priorities – although one could claim that intermodal transportation that minimizes the role of trucking in long or short distance hauling is better. Hence, it is worth noting Railway Workers United and its efforts to find common ground with communities and environmentalists.

Air transportation is another significant element. The DOD has been pushing for the commercialization of jet biofuels for quite some time. Even if a biofuel economy could be created in a manner that does not cause negative externalities it is some time off. In the meantime, the Transportation Department of the AFL-CIO has been critical of the European emissions standards mandated by the European ETS (<http://ttd.org/policy/policy-statements/supporting-a-global-solution-to-aviation-emissions/>).

I have not been able to find sufficient information on US unions and maritime transportation, a very

significant source of emissions as well as a mode central to the world political economy. But, noticeably, the ILWU is playing a leading role, in collaboration with local environmentalists and communities, in fighting back against the building of an oil and a coal terminal on the West Coast. The debates over these terminals also expose the deep differences between unions with an instrumental approach to green jobs and those with a more profound commitment to a green transition. The coal terminal is significant because it offers coal an opportunity of exports to China and to India, thus contributing to carbon leakage and the overall negation of renewable energy standards and efficiency in the US. The oil terminal will serve to export the increasing amounts of oil resulting from fracking.

II.2. BLUEGREEN ALLIANCE

The relations between unions and environmentalists have a long if fitful history. During the 1990s these relations reemerged around the NAFTA debate. These contacts combined with changes in the AFL-CIO leadership led to more systematic discussions between unions and environmentalists during the mid to late 1990s (Rose 2003; Obach 2004; interviews with principals). Despite some setbacks associated with the AFL-CIO's opposition to the Kyoto Protocol and the victory of the Republicans in 2000 national level negotiations towards forming an environmentalist-labor organization continued resulting, in 2006, in the formation of the BGA by the Sierra Club and the USW (on BGA see David Foster 2010; also interviews with principals). The BGA was soon joined by a number of unions and environmentalists (Union of Concerned Scientists, Natural Resource Defense Council and National Wildlife Federation).

Currently the BGA has fifteen members (10 unions and 5 environmental organizations – Environmental Defense Fund Action joined in 2014). The cohesion of the BGA has been tested by the conflicts associated with the KeystoneXL Pipeline. The opposition of some unions and many environmentalists to the Pipeline led the Laborers International Unions of North America (LIUNA) to leave the BGA, in the process criticizing it very publicly. The BGA itself has stayed largely silent on this controversy (precisely because of the divisions); although, a number of its members signed a letter supporting Obama's 2012 decision to delay approval (see Kojola 2015). The reaction of the construction and energy related unions to the criticisms of the Pipeline exhibit the same cleavages as those witnessed with respect to nuclear power during the 1970s and 1980s.

A review of the BGA's proposals demonstrates that they reflect the interests and priorities of its members. For instance, green schools reflect those of the AFT, more internet linkages those of the CWA and so on. If there is an overarching program, it is that of greening manufacturing and infrastructure through industrial policy. This reflects the priorities of the industrial unions that are at the core of the organizations (USW and UAW). The thrust of the BGA is apparent in what is the most recent general statement (Gordon, Borosage and Pugh 2013).¹⁰ The BGA has a broad array of twelve initiatives. Most of the initiatives are intimately related, e.g., clean energy, energy efficiency, climate change. Others have evident synergies, such as transportation, infrastructure, fuel efficient vehicles, broadband. Still others reflect long standing concerns of the union movements such as workers rights, work environment and public health and others reflect innovative initiatives by unions, such as Green Schools. An 11th initiative on recycling seems inactive. The final initiative – and a central one – is that of Made in America.

¹⁰ For a more comprehensive discussion of BGA see Stevis 2014 and LNS.

In addition to its sectoral initiatives, the BGA centers much of its work in eight states that, collectively, account for much of the US economy. Important absences here are Texas and the Southern US. It has developed manufacturing plans for each one of these states – partly in collaboration with the Apollo Alliance that became a program of the BGA in 2011. These plans are the result of deliberations between unions, political leaders and green industry and seek to reflect the particular strengths and promises of each state. The BGA Foundation’s Clean Energy Manufacturing Center, mentioned above and requiring more attention, also reflects this collaborative approach.

The recognition that the US has regional characteristics that should be taken into account in a green transition is evident in the overall strategy and reiterated forcefully in what may be considered as the most synthetic statement of the BGA (Gordon, Borosage and Pugh 2013). In addition to state level manufacturing plans the BGA has also developed specific policies with respect to efficiency, infrastructure (transportation and internet) and other sectors.

What is worth noting is that the BGA, in collaboration with local organizations has also developed plans at the city level, such as NYC, that include a variety of specific proposals working towards an integrated whole. In an urbanized world climate change strategies that target cities, the largest producers and consumers of climate affecting practices, can be considered an important strategic turn – when combined with closer attention to ‘smarter’ and denser cities (the two not always the same in such discussions in the US) (<http://www.bluegreenalliance.org/blog/smarter-cities-will-help-fight-climate-change>).

Whatever its limitations may be the BGA is an important development in the relations between unions and environmentalists. The principals see it as a political initiative to confront the neoliberalization of the US economy – not simply as a tactical coalition. It has generated a wealth of proposals and initiatives and can be considered as an important example of reformist politics in the US. In some recent research I have argued that the vision of the BGA is closer to weak ecological modernization with a significant element of competitiveness vis a vis China (Stavis 2014). In the absence of parties committed to a green and just transition, environmentalists that are often impervious to the social costs of a green transition, and unions that are strongly ambivalent about climate policy, the formation and survival of the BGA is paramount for the future of union environmentalism in the midst of deeply neoliberal political economy. The final report will address its record and prospects more fully with an eye to evaluating whether the alliance has staying power or whether it may be a short episode.

III. Tentative Conclusions

ON COALITIONS AND TRANSITIONS. In the absence of strong political parties, individual organizations, in longer or shorter term alliances or networks, play a key role in US politics. This is not in the sense of interest group politics, which obscures the significance of structural inequalities and power. More than most industrial countries, capital and its allies dominate US politics followed by the law, order, and military sector (which commands enormous material and political resources). However, within these structural or institutional parameters, policies are also the outcome of the exigencies of these alliances.

Members of the Apollo Alliance, for instance, find themselves allied with right wing advocates with respect to US energy autonomy. Such coalitions can produce long term results but do come at a price. Let me provide an illustration here (more in Giannakouros and Stevis 2014).

During the early 2000s the state of Colorado sought to adopt a Renewable Energy Standard (RES). The resistance of the energy industry was resolute and was overcome only when green business, mainstream environmentalists, and key Democrats found an unexpected ally in Eastern Colorado conservatives (who reject(ed) that climate change is happening). These unexpected allies were attracted by the potential income from the siting of wind farms. For them this was an economic development opportunity that happened to be green energy and green manufacturing. A few years later, pressed by EPA rules, the state decided to close some coal fired units and retool others into natural gas plants. This made the utility company a friend of the natural gas industry, while marginalizing the coal industry. Workers in the unionized coal-fired plants were opposed to the shift and the expected rise of the RES, at the same time that electricians (from a different local of the same union) were supportive of the new RES. A final compromise produced a better solution for both groups of workers at that juncture but not for the long term. Workers in coal-fired plants are still against stronger RES because neither the state nor employers (nor environmentalists) have offered a transitional strategy. And, of course, natural gas is no friend of renewable energy or efficiency.

Labor unions (and environmentalists) are being pulled in different ways. Most union leaderships support Democrats but many members are Republicans and some unions (especially in law and order) support Republicans. Due to their internal complexity, unions may also end up allying themselves with supporters and opponents of climate change. In order to promote key strategies, such as an energy policy, unions may find common ground with nationalists who are interested neither in unions nor climate change. Tactical alliances can have momentous results but they also create path dependencies that may not be consistent with longer term political priorities about a green economy that is also good for workers. During a period of weakness, unions may not have the luxury of picking allies. Yet, the historical record also suggests that unions vary in terms of their choices even during periods of strength. That was certainly the case during the 1970s and, currently, many unions have not made a long term commitment to decarbonization. Stated differently, some unions may end up on a less green path as a result of a necessary alliance; others were on a green path only circumstantially.

Given the strong neoliberal attitude prevalent in the US, the absence of a labor or social democratic party and the organizational and ideological fragmentation of unions, those unions that are committed to a green transition have a major challenge in front of them. On one hand they have to form coalitions of the willing – on the other they must ensure that these coalitions allow an opening for a transition that is both green and just. That is, that they are co-authors of the transition rather than mere subjects or objects of it.

ON THE SCALE AND PURPOSE OF GREEN TRANSITIONS. This overview suggests that there are a number of proposals emanating from US labor unions to address climate change (to be discussed in more depth in the final report). There are also profound silences and serious resistance. Some of these strategies are due to the thin safety net that liberal capitalism provides but others are due to long term commitments by unions, e.g., to nuclear power. It would be inaccurate to aggregate all proposals in an undiffer-

entiated category. In this provisional closing comments we propose to differentiate amongst proposals and, thus, amongst labor unions on the basis of the scale and scope of their proposals (Crawley 1999; Goods 2013).

At the most modest level, a number of unions have called for green jobs and skills as part of a growing repertoire of opportunities for their members. To that end they have added training and have highlighted their potential role in greening energy, manufacturing, construction and infrastructure. What we have to ask here is whether union proposals aim at green processes or green products. And, further, are these green processes or products part of greening a sector and the economy? Having said that, there is much to be learned from developing skills for green products and processes since such skills are a necessary component of greening the economy.

Some other unions have paid attention to particular commodity or supply chains. The USW, for instance, has called for repatriating/reshoring supply chains in key sectors, e.g., batteries. A number of other unions, opposed to climate policy co-sponsored a study on a range of technologies and the prospects of upgrading the standing of the US with respect to them (Gereffi et. al. 2008). These technologies can be collectively categorized as more efficient and greener technologies. Their adoption and growth in the US (once we bypass the competitiveness rationale) can play an important role in mitigation and adaptation.

Other unions target whole sectors. The CWA, for instance, has advanced a strategy of greening the information sector and infrastructure (including transportation, broadband, water, etc.) is a central strategic focus of the BGA. Green sectoral improvements will certainly have a more significant impact on climate policy than the greening of particular skills or commodity and supply chains and will, in fact, encourage their proliferation.

Finally, a good argument can be made that the BGA has an economy wide vision. Existing gaps, e.g., the impacts of the food industry (particularly meat production) on climate, there is no reason why such activities could not be incorporated –provided that the relevant unions became greener. Between the BGA (and its Apollo Alliance Program) and those policy advocates closer to it (PERI/CAP; Good Jobs First; Economic Policy Institute) there have emerged enough research, enough proposals and enough specific legislative interventions to qualify as a fairly extensive if not fully cohesive green transition program.

NAMING THE TRANSITION. But should we stop here? Is it enough to hope that the BGA's program (and influence) will become broader and that labor will be ready to advance its green strategy when another opportunity emerges? I think that such a finding is useful but not adequate. We also need to 'name' the social purpose of the dominant climate strategies that emerge within labor. In heuristic terms then, there are three categories of coalitions – those in favor of some of broad and deep transition, those opposed, and those that come together to support elements of a transition for tactical reasons (and which may have important impacts, nonetheless). Within each of those categories there is significant variability – with some green transition alliances being firmly embedded within neoliberalism while others challenging it in one way or another (Stavis and Felli 2015). Similarly, those opposed may be neoliberal climate deniers as well as communities and workers who want climate policy but, also, a just transi-

tion (Brecher 2015b). But even amongst coalitions which may be broadly called neoliberal or social liberal or reformist or transformative, there may exist significant and consequential differences. The sociotechnical transitions approach, as used here, allows us enough flexibility to look at the range of forces involved in particular transitions and to identify dynamics that may be obscured by preconceived notions. It also requires that we move beyond the forms of coalitions in order to better understand the social purpose that these transitions serve.

References

- Barrett, James and Andrew Hoerner with Steve Bernow and Bill Dougherty. (2002). *Clean Energy and Jobs: A Comprehensive Approach to Climate Change and Energy Policy*. Washington, DC: Economic Policy Institute.
- Betsill, Michele and Dimitris Stevis. (2016). The Politics and Dynamics of Energy Transitions: Lessons from Colorado's (USA) "New Energy Economy." *Environment and Planning C: Government and Policy*, 34: 381-396.
- BlueGreen Alliance at <http://www.bluegreenalliance.org> [particularly News and Publications and Our Work].
- Block, Fred and Matthew Keller (eds). (2011). *State of Innovation: The U.S. Government's Role in Technology Development*. Boulder: Paradigm Press.
- Brecher, Jeremy. (2015a). *Climate Insurgency: A Strategy for Survival*. Paradigm Press.
- Brecher, Jeremy. (2015b). A Superfund for Workers: How to Promote Just Transition and Break Out of the Jobs vs Environment Trap. *Dollars & Sense*. November/December: 20-24.
- Buffa, Andrea, Carol Zabin, Cheryl Brown and Dave Graham-Squire. (2008). *California's Global Warming Solutions Act of 2006: A Background Paper for Labor Unions*. UC Berkeley Labor Center and Workforce and Economic Development (a program for California Federation, AFL-CIO). URL: http://www.irl.berkeley.edu/vial/publications/AB32_background_paper08.pdf
- Christof, Peter. (1996). Ecological Modernisation, Ecological Modernities. *Environmental Politics*, 5(3): 476-500.
- Cohen, Maurie. (2006). Ecological Modernization and its Discontents: The American Environmental Movement's Resistance to an Innovation-Driven Future. *Futures* 38: 528-547.
- Cohen-Rosenthal, E. (1997) Sociotechnical Systems and Unions: Nicety or Necessity? *Human Relations*, 50(5): 585-604.
- Connelly, Steve. (2007). Mapping Sustainable Development as a Contested Concept. *Local Environment*, 12(3): 259-278.
- Crowley, Kate (1999) Jobs and the Environment: The "Double Dividend" or Ecological Modernisation? *International Journal of Social Economics* 26: 1013-1026.
- Demaria, Frederico, Francois Schneider, Filka Sekulova and Joan Martinez-Allier. (2013). What is De-Growth? From an Activist Slogan to a Social Movement. *Environmental Values*, 22: 191-215.
- Dicken, Peter. (2015). *Global Shift: Mapping the Changing Contours of the World Economy*, 7th edi-

tion. Guilford Press.

Dobson, Andrew. (1996). Environmental Sustainabilities: An Analysis and a Typology. *Environmental Politics*, 5(3): 401-428.

Deutz, Pauline. (2009). Producer Responsibility in a Sustainable Development Context: Ecological Modernization or Industrial Ecology? *The Geographical Journal*, 175 (4): 274-285.

Dryzek, John. (2013). *The Politics of the Earth: Environmental Discourses*, 3rd edition. Oxford University Press.

Fichter, Michael and Dimitris Stevis. (2013). *Global Framework Agreements in a Union-Hostile Environment: The Case of the USA*. Friedrich Ebert Stiftung and Hans Bockler Stiftung. URL: <http://library.fes.de/pdf-files/id/10377.pdf>

Foster, David. (2010). BlueGreen Alliance: Building a Coalition for a Green Future in the United States." *International Journal of Labour Research*, 2(2): 233-244.

Foster, John Bellamy. (2011). Capitalism and Degrowth: An Impossibility Theorem. *Monthly Review*. At <http://monthlyreview.org/2011/01/01/capitalism-and-degrowth-an-impossibility-theorem/>

General Accounting Office. (2014). *Renewable Energy: Federal Agencies Implement Hundreds of Initiatives*. Government Accountability Office.

Geels, F. W. (2011). The multi-level perspective on sustainability transitions: Responses to seven criticisms". *Environmental Innovation and Societal Transitions*, 1(1) 24-40.

Gereffi, G., Dubay, K. and Lowe, M. (2008) *Manufacturing Climate Solutions: Carbon Reducing Technologies and U.S. Jobs*. Center on Globalization, Governance & Competitiveness, Duke University.

Giannakouros, Stratis and Dimitris Stevis. (2014). Colorado's New Energy Economy: Ecological Modernization American Style? In Neil. E. Harrison and John Mikler (eds). *Climate Innovation: Liberal Capitalism and Climate Change*. Basingstoke: Palgrave Macmillan, pp. 72-96.

Goods, Caleb. (2013). A Just Transition to a Green Economy: Evaluating the Response of Australian Unions. *Australian Bulletin of Labour*, 39(2): 13-33.

Goodstein, Eban. (1999). *The Trade-Off Myth: Fact & Fiction About Jobs and the Environment*. Island Press.

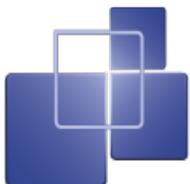
Gordon, Kate, Robert Borosage and Derek Pugh. (2013). *The Green Industrial Revolution and the United States. In the Clean Energy Race, Is the United States a Leader or a Luddite?* Center for American Progress and BlueGreen Alliance.

Gottlieb, Robert. (2005). *Forcing the Spring: The Transformation of the American Environmental Movement*. Revised and Updated Edition. Island Press.

- Grossman, R. and G. Daneker. (1979). *Energy, Jobs and the Economy*. Boston, Alyson Publishers, Inc.
- Hall, P. and D. Soskice (eds). (2001). *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*. New York, Oxford University Press.
- Hess, David. (2012). *Good Green Jobs in a Global Economy: Making and Keeping New Industries in the United States*. Cambridge, MA: The MIT Press.
- Hess, David. (2014). Sustainability transitions: A political coalition perspective. *Research Policy*, 43: 278-283.
- Jackson, Tim. (2011). Societal Transformations for a Sustainable Economy. *Natural Resources Forum* 35: 165-174.
- Jaenicke, Martin and Stefan Lindemann. (2010). Governing Environmental Innovations. *Environmental Politics*, 19 (1): 127-141.
- Kojola, Erik. (2015). (Re)constructing the Pipeline: Workers, Environmentalists and Ideology in Media Coverage of the Keystone XL Pipeline. *Critical Sociology*, online.
- Levinson, Marc. (2015). *US Manufacturing in International Perspective*. Congressional Research Service.
- Lohman, Larry. (2009). Toward a Different Debate in Environmental Accounting: The Cases of Carbon and Cost-Benefit. *Accounting, Organizations and Society*, 34 (3-4): 499-534.
- Mattera, Philip. (2009). *High Road or Low Road? Job Quality in the New Green Economy*. A Report by Good Jobs First.
- Mayer, Brian. (2008). *Blue-Green Coalitions: Fighting for Safe Workplaces and Healthy Communities*. ILR Press.
- Meadowcroft, James. (2011). Engaging with the Politics of Sustainability Transitions. *Environmental Innovation and Societal Transitions*. 1(1) 70–75.
- Minchin, Timothy. (2003). *Forging a Common Bond: Labor and Environmental Activism during the BASF Lockout*. Gainesville, FL: University Press of Florida.
- Moody, Kim. (2010). The Direction of Union Mergers in the United States: The Emergence of Conglomerate Unionism. *British Journal of Industrial Relations*, 47(4): 676-700.
- Noble, Charles. (1986). *Liberalism at Work: The Rise and Fall of OSHA*. Temple University Press.
- Obach, B. (2004). *Labor and the Environmental Movement: The Quest for Common Ground*. Cambridge, MA: The MIT Press.
- Ongerth, Steve. (2015). Unions and the Climate Justice Movement. At <http://climateandcapitalism.com/2015/10/13/unions-and-the-climate-justice-movement/>

- Pollin, Robert, et al. (2008). *Green Recovery: A Program to Create Good Jobs and Start Building a Low-Carbon Economy*. Center for American Progress and PERI.
- Pollin, Robert, Heidi Garrett-Peltier, James Heintz, and Bracken Hendricks. (2014). *Green Growth A U.S. Program for Controlling Climate Change and Expanding Job Opportunities*. Center for American Progress and Political Economy Research Institute.
- Renner, Michael. (1991) *Jobs in a Sustainable Economy*. Worldwatch Paper 104. Washington, D.C., Worldwatch Institute.
- Renner, Michael, Sean Sweeney and Jill Kubit. (2008). *Green Jobs: Working for People and the Environment*. Worldwatch Institute.
- Revesz, Richard and Livermore, Michael. (2008). *Retaking Rationality: How Cost-Benefit Analysis Can Better Protect the Environment and Our Health*. Oxford University Press.
- Rip A, and R. Kemp R. (1998). Technological change. In S. Rayner and E. Malone (eds). *Human Choice and Climate Change*. Columbus, OH: Battelle Press, pp 327-399.
- Rose, Fred. (2003). Labor-Environmental Coalitions. *WorkingUSA*, 6(4): 51-70.
- Schmitt, J., & Mitukiewicz, A. (2012). Politics matter: Changes in Unionisation Rates in Rich Countries, 1960-2010. *Industrial Relations Journal*, 43, 260-280.
- Shove, Elizabeth and G. Walker. (2007). Caution! Transitions Ahead: Politics, Practice and Sustainable Transition Management. *Environment & Planning, A* **39** 763–770.
- Skocpol, Theda. (2013). Naming the Problem: What It Will Take to Counter Extremism and Engage Americans in the Fight against Global Warming. At http://www.scholarsstrategynetwork.org/sites/default/files/skocpol_captra_de_report_january_2013_0.pdf
- Slatin, Craig. (2009). *Environmental Unions: Labor and the Superfund*. Baywood Publishing Company.
- Stavis, Dimitris. (2014). US Labour Unions and Climate Change: Technological Innovations and Institutional Influences. In Neil E. Harrison and John Mikler (eds). *Climate Innovation: Liberal Capitalism and Climate Change*. Basingstoke:Palgrave Macmillan, pp. 164-188.
- Stavis, Dimitris and Romain Felli. (2015). Global Labour Unions and Just Transition to a Green Economy. *International Environmental Agreements*, 15(1): 29-43.
- Tienhaara, Kyla. (2014). Varieties of Green Capitalism: Economy and Environment in the Wake of the Global Financial Crisis. *Environmental Politics*, 23(2): 187-204.
- Trist, E. (1981). *The Evolution of Socio-Technical Systems: A Conceptual Framework and an Action Research Program*. Toronto, Ontario Ministry of Labour Ontario Quality of Working Life Centre.
- Whitley, Richard. (2007). *Business Systems and Organizational Capabilities: The Institutional Structuring of Competitive Competences*. Oxford University Press.

Zeitlin, Jonathan. (1987). From Labour History to the History of Industrial Relations. *The Economic History Review*, New Series 40(2): 159-184.



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