Institution: University of Westminster		
Unit of Assessment: 17 Business and Management Studies		
Title of case study: Foregrounding and Developing Worker Agency within Just Transitions		
Period when the underpinning research was undertaken: 2013 - 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	**Role(s) (e.g. job title):**	**Period(s) employed by submitting HEI:**
Linda Clarke	Professor	06/1992+
Colin Patrick Gleeson	Reader	12/2003 – 08/2018
Fred Steward	Professor	10/2009 – 04/2016
Melahat Sahin-Dikmen	Research Fellow	02/2016+
Period when the claimed impact occurred: Aug 2013 – Dec 2020		
Is this case study continued from a case study submitted in 2014? ~~Y~~/N		

1. Summary of the impact (indicative maximum 100 words)

The research of Professor Linda Clarke and the Centre for the Study of the Production of the Built Environment (ProBE) has successfully foregrounded the important roles that workers and unions play in transitioning to green economies, and the capabilities required for this within the construction sector in particular. This has resulted in impacts on policy and practice regarding the just transition via key stakeholders in the following regions:

- *In Canada*: Changes to the strategy and practice of Canada's Building Trade Unions, encompassing training provision and their broader approach to climate change and employability.
- *In the UK*: providing direct training, informing policy, and providing best practice models for a range of stakeholders including Greener Jobs Alliance, Unite the Union, and the Public and Commercial Services Union.
- *In Europe*: informing the policymaking of the key representative bodies for European construction trade unions (EFBWW) and construction employer federations (FIEC).

2. Underpinning research (indicative maximum 500 words)

1. Adapting Canadian Work and Workplaces to Respond to Climate Change (ACW)

Workers, unions, and the labour process within various sectors have tended to be marginalised in policy and practice surrounding climate change. A just transition framework encompasses all sectors and takes the workers' socio-economic situation and participation (involvement, capabilities, and responsibilities) into account when considering the shift from a carbon intensive to a zero carbon economy.

ACW is a large scale Canadian Social Sciences and Humanities Research Council (SSHRC) funded programme for which Clarke is an Associate Director (CAD $2,547,130 with a further $2.2m in match-funding from partner organisations). Clarke leads the ProBE team in identifying good practice initiatives, policies, and strategies by stakeholders, in particular unions, undertaking the just transition to a green economy. This research encompasses distinct projects, from which the following example outputs emerged.

Project 1, *Green Transitions in the US and Europe,* 2016-20, resulted in outputs [1] and [3] providing accounts and analyses of "good practice" green and just transition initiatives by global, European, and US trade unions. By covering a wide range and number (c.80) of policies and practices across Europe and the US, this research has: identified the various conditions, constraints, stakeholders, and coalitions of actors involved; explored how exemplary cases are implemented in particular countries (e.g. Denmark and Sweden) and sectors (e.g. sugar beet, forestry) and the practical context-specific strategies involved; and put forward recommendations for adoption elsewhere.

Project 2, *Green Transitions in the Built Environment,* 2016-7, involved a detailed focus on stakeholders and strategies within the construction industries of Denmark, UK, Germany, and Italy. The ProBE researchers found that, where social partnership between employers and unions is institutionally embedded (Denmark and Germany), a more holistic approach to the just transition is evident and unions are more constrained in their actions [2]. In contrast, where it is not embedded (Italy and UK) gains can be transformational but tend to be more sporadic and one-off [3]. At the same time, this analysis of how specific construction policies and practices are impacted

by their structural contexts provides unions, practitioners, and policy-makers with model approaches to addressing climate change.

2. VET4LEC: Vocational Education and Training (VET) for Low Energy Construction (LEC)

Whilst climate change initiatives may be seen by unions as an employment threat in fossil fuel-based industries, ProBE's research is important in detailing how just transitions can reduce energy consumption and offer opportunities for thousands of new jobs, thereby providing a positive frame. Further, the ongoing "transforming construction" debate revolves around new technologies and has not properly acknowledged social aspects (VET, skills, employment and working conditions, social relations on site, etc.) vital to implementing such change. Clarke et al have addressed this by foregrounding VET and qualifications as critical elements in the just transition.

Their research shows that the complex work processes involved in LEC require "energy literacy" within all construction occupations, high qualification levels, broad occupational profiles, integrated teamworking, and good communication. To achieve these, it is necessary to: (a) identify the expertise required to bridge occupational divisions and those interfaces where heat losses occur; (b) develop curricula based on a broader concept of agency; and (c) overcome obstacles to implementation, including the existing structure of VET provision and the fragmentation of construction employment [4].

Due to this research, Clarke's team was appointed as "special experts" by the European Commission's Construction VET Social Dialogue (through which unions and employers across Europe develop joint strategies) to carry out further research and to coordinate with all of the international partners on a large-scale project (€358,680) of the European Federation of Building and Woodworkers (EFBWW) and European Construction Industry Federation (FIEC): *VET4LEC*. Comparing VET and qualifications for LEC in ten European Member States, and establishing equivalence between vocational qualifications across Europe, Clarke et al uncovered tensions between two approaches to VET for LEC. One approach is predicated on immediate employer demand for "skills", and relies on short, one-off LEC courses. The second is associated with social partnership models and mainstreams LEC elements into broad occupational profiles and VET curricula, encompasses knowledge, skills, and competences, and ensures that workers are equipped for the required transformation in the construction labour process [5] [6].

3. References to the research (indicative maximum of six references)

[1] Clarke L, Sahin-Dikmen M, Stevis D, Steward F (2017) *Green Initiatives Database.*

[2] Clarke L, Gleeson C., Sahin-Dikmen M (2018) *Green Transitions in the Built Environment: Europe,* ACW Final Report; includes *City Building (Glasgow): an inspirational model of low energy social housing and public building production.*

[3] Clarke L and Lipsig Mummé C. eds. (2020) Special Issue: Trade Unions, Climate Change and Just Transition, *European Journal of Industrial Relations* (26/4) includes: Clarke L and Sahin-Dikmen M, 'Unions and the green transition in construction in Europe: contrasting visions', and Clarke L and Lipsig-Mummé C, 'Future conditional: from Just Transition to radical transformation?'

[4] Clarke L, Gleeson C, Winch C (2017) 'What kind of expertise is needed for low energy construction?', *Construction Management and Economics,* 35/3: 78-89.

[5] Clarke L., Sahin-Dikmen M. and Winch C. (2020) Overcoming diverse approaches to vocational education and training to combat climate change - the case of low energy construction in Europe, *Oxford Review of Education* (46/5): 619-636.

[6] Clarke L, Gleeson C, Sahin-Dikmen M, Winch C, and Duran-Palma F (2019) *VET4LEC – Inclusive Vocational Education and Training for Low Energy Construction,* Final Report and Country Summaries, February

Funding:

- *Adapting Canadian Work and Workplaces to Respond to Climate Change,* SSHRC Partnership Grant, CAD $152,500 to Westminster-led projects, 01/2016-04/2021 (outputs [1][2][3])
- *VET4LEC* (Vocational Education and Training for Low Energy Construction), European Commission (DG EMPL, Social Dialogue budget line), €50,000, VP/2016/001/012, Linda Clarke (P-I) 12/2016-02/2019 (outputs [5][6])

4. Details of the impact (indicative maximum 750 words)

1. Aiding the Just Transition in Canada

The ACW project involves 56 researchers and 25 partner organisations in 7 countries encompassing North America and Europe, with its partner organisations – unions, green organisations, training providers, etc. – reaching millions worldwide via their multilingual online networks [a-i]. The partnership strategy is to produce research from an international perspective that actively aids workplaces to adapt to climate change responses. For this work, ACW won the Canadian Social Sciences and Humanities Impact Award in the area of Partnership, presented to the Director and Associate Directors (including Clarke) by the Canadian Governor General at Government House in Ottawa on October 3rd 2018 [a-ii]. Lee Loftus, the Chair of SkillPlan and an active member of **Canada's Building Trade Unions** (CBTU) – receiving a Distinction Award for his work with them in 2019, specifies three specific strands of "work initiated or undertaken because of the research collaboratively with Clarke et al" [a-iii] that demonstrate the impact of this partnership approach:

Changes to training practice and provision: Loftus states that the 1st and 4th year BC Insulators apprenticeship programme provided by CBTU is "reinforced" by ProBE's research, which "produced climate awareness and acknowledgment of standards and needs relative to the awareness built" [a-iii]. First piloted in British Columbia (BC), this programme is "now integrated into Red Seal programs throughout Canada and North America for Mechanical Insulation", having been implemented by the International Association of Heat and Frost Insulators and Allied Workers (IAHFIAW) [a-iii]. Red Seal programs cover 56 trades and set common standards to assess the skills of tradespeople across Canada, providing endorsements or certificates of qualifications where their requirements to practice are met.

Facilitating engagement between CBTU and governmental policymakers: Loftus states that the ProBE "work elevated the need for conversation on Climate Literacy in workplaces and trade unions" and "facilitated important conversation with Canadian policymakers" regarding the "development of 'Climate Literacy' for each of the 55 Red Seal Construction curriculum in Canada" [a-iii]. This is important for overcoming attitudinal barriers to the transition to a green economy.

Changing the agenda of CBTU with regard to climate change: Loftus states that, where previously climate change initiatives had been "seen by unions as an employment threat", "Clarke et al have highlighted the vital role of social aspects (vocational education & training (VET), skills employment and working conditions, social relations on site, etc.) in 'transforming construction' by foregrounding VET and qualifications as critical elements in just transition" [a-iii]. This ProBE "research led the [CBTU] to undertake research on expected energy use, new energy source and related employment outlook" [a-iii]. *Jobs for Tomorrow* [a-iv], a "landmark study" commissioned by CBTU and BC Building Trades and undertaken by Columbia Institute, specifies "that meeting Canada's climate goals by 2050 could generate 3.3 million construction jobs" and sets out particular initiatives that would aid this just transition: moving to an electrical supply grid, a long-term plan for urban transit infrastructure, and enabling smart communities with net zero building retrofits and new "green" construction [a-iii]. These findings have been key in directing CBTU's strategies for pursuing the just transition.

2. Furthering the Just Transition in the UK

In the UK, Clarke and ProBE have directly engaged with a range of organisations in order to further the just transition of British workforces. Four examples are:

The *Greener Jobs Alliance* (GJA) is a partnership body inclusive of trade unions, campaigning groups, student organisations, and a policy think tank. Clarke was invited to be a member of the steering group that determines the agenda and strategy of this partnership body and, in this capacity, she has been able to provide **a research-based foundation for the GJA's priorities and actions**. For instance, for the recently agreed priority to "[s]upport Green New Deal (GND) bargaining by working with unions to provide resources to incorporate in local regional and national bargaining", Clarke provided "[a]dvice from ProBE [which] has been fed into the final draft" and "production of resources related to green skills" co-created with the TUC (Trade Unions Congress) and launched in May 2020 [b-i]. GJA confirm: "we have produced a number of **online modules where the expertise of ProBE has been a vital source of information**", adding that "the latest on-line module on Just Transition had 283 participants" [b-i]. In total, 3,700 participants

undertook online courses within the training programme between May 2019 and May 2020 [b-ii] [b-iii].

Unite the Union is the largest trade union in the UK with 1.4 million members. The President of the Trade Union Congress and Assistant General Secretary of *Unite* highlights the VET4LEC project as "of particular importance in recent years" and that "**our own research/publications on women in construction, apprenticeships and 'green skills' have been influenced by her work**" [b-iv]. The Assistant General Secretary further states that "various seminars and workshops hosted by Professor Clarke/University of Westminster, have acted as **CPD opportunities and helped develop the understanding of Unite activists, Tutors and Full-Time Officials**. This is particularly the case with regard to Inclusive VET and low energy construction, labour and climate transition" [b-iv].

City Building Glasgow **(CBG)** is a not-for profit building organisation, operating within a joint 50/50 ownership arrangement between Glasgow City Council and Wheatley Housing Group, with an in-house training centre, a large apprenticeship scheme, and a highly unionised, directly employed, workforce building low energy social housing and retrofitting and maintaining the City's building stock. The Chair of the *Joint Trade Union Council* (JTUC), which functions as "the strategic body working progressively with the Executive team within City Building", states that the "work undertaken by ProBE has dovetailed well into the banner that we carry forward" and "has **helped the JTUC carry the beacon forward as a 'best practice' model for other unionised bodies to utilise**" [b-v]. The adoption of this model has occurred through output [2], which details City Building's strong social ethos and good employment practices, and the significant role of unions in guiding its business model. CBG's profile in Scotland was heightened by a January 2018 motion passed in the Scottish Parliament congratulating CBG on being highly commended in the same report [b-vi], while the Secretary of ***Leeds Trades Union Council*** confirms that exposure to the CBG model via Clarke is such that it has fed into their "'manifesto' calling for a large-scale retrofit programme in Leeds" [b-vii]. This occurred through Clarke's presentation at a 2019 conference which "enabled us to grasp the challenges involved in scaling up domestic energy efficiency retrofit to the level, and at the pace needed", and in which the "Glasgow City Building model was discussed as an example of the kind of integrated approach capable of overcoming these obstacles" [b-vii].

The *Public and Commercial Services Union* (PCS), the largest Civil Service union, represents among its members those undertaking policy, regulation, and monitoring roles in government departments "central to energy transition and wider climate change mitigation measures" [b-viii]. As such, PCS has itself "been central in debates around energy transition and the need to develop a 'whole economy' approach to understand impacts of climate change, and measures needed to address these, on all workers" [b-viii]. The National Policy Officer on Climate Change and Green Issues highlights two specific areas in which ProBE's research and direct engagement with PCS (e.g. participation in roundtable discussions and broader knowledge exchange) has been "very important to test and inform our thinking" [b-viii]. One is the just transition, by which PCS' "engagement with ProBE has undoubtedly **helped us to understand the interlinkages across energy transition and the built environment and to think about transition plans in a more holistic way**", with Prof Clarke helping them to strategise around their "wider policy aim for the creation of a National Climate Service" [b-viii, b-ix]. The other area is that of retrofitting: "Our work with Linda and PRoBE has been **invaluable to help us develop our campaigns and policy on this [issue of retrofitting]**, bringing in aspects around construction and skills/training for example which as a public sector union without members in that sector, were not so immediately clear to us. This connection has undoubtedly helped build our knowledge and confidence in articulating this" [b-viii].

3. Developing Just Transition Policy in Europe

ProBE's research reports (e.g. output [2]) are available on the ACW website, alongside ProBE's Green Initiatives Database (output [1]), which collects the initiatives, policies, and practices from US and Europe [c-i]. These resources provide a "best practice" foundation for stakeholders across the globe – policymakers in unions, inter/national committees, and governments – to consult, build upon, and improve their own transition strategies. The **use of this knowledge base has been encouraged by the *United Nations Framework Convention on Climate Change* (UNFCCC),** which profiled the ACW in a section on the importance of "Consultation and Social Dialogue" in its

October 2016 report – *Just Transition of the Workforce, the creation of decent work, and quality jobs* – for the twenty-second session of the Conference of the Parties (COP 22) [c-ii, p.49]. Its inclusion was to "assist Parties in the process of just transition of their national workforces, and the creation of decent work and quality jobs in relation to the implementation of climate change mitigation policies" [c-ii, p.5]. Further to this, the examples below demonstrate the way in which ProBE's VET4LEC research is playing a significant role in shaping such policy on the just transition in Europe.

The European Federation of Building and Woodworkers **(EFBWW)**, representing 76 construction trade unions in 31 countries and a total of 2 million members, was directly engaged in ProBE's VET4LEC project. The former General Secretary of the EFBWW confirms that "the research carried out by Professor Clarke and her team has been **invaluable to the EFBWW in our policy-formation** and in our lobbying towards the European Commission", with the insight into social partnership models being particularly useful for their "long-term strategy to ensure that workers are fully equipped for the transition to low-energy construction" [c-iii]. A commitment to aiding in a Just Transition is now one of their six key policy positions and the VET4LEC report (output [6]) is hosted on their site [c-iv].

The European Construction Industry Federation **(FIEC)** represents 33 construction employer federations in 29 countries and the industry itself generates 9% of GDP in the European Union (EU) and provides 13 million direct jobs. As a project of the Construction VET Social Dialogue, which has a policymaking role within the EU, the VET4LEC report [6] was disseminated to all FIEC members. Further, **ProBE's research directly fed into the new policy framework specified in the FIEC report *Construction 2050: Building tomorrow's Europe today*** (June 2019) [c-v]. As the Director General of FIEC writes, the framework responds to the future skills gap identified in the VET4LEC findings by "point[ing] to the need for construction workers to continuously adapt their abilities and competences to new developments such as energy efficiency, for investment in lifelong learning, and a holistic approach towards EU level policy making in this area" [c-vi]. In February 2020, 40 representatives of the major construction industry associations met in Brussels to take this initiative forward by refining the FIEC proposals "in order to fully realise its goals" [c-vi]. This involved translating the principles of adaptability featured in the *Construction 2050* document into practical proposals, e.g. specific work programmes, establishing thematic groups that can identify new challenges as they arise, and jointly created roadmaps to ensure uptake of the initiative and political visibility [c-vii]. As such, ProBE's VET4LEC research is "**helping to shape a European-wide sectorial initiative that responds to the changeability of the construction ecosystem"** [c-vi]. Such an initiative holds great significance given that construction is a fundamental sector of Europe's economic growth [c-vii].

5. Sources to corroborate the impact (indicative maximum of 10 references)

[a] (i) ACW Project Summary [link] (ii) SSHRC Impact Awards [Partner Award description] [link] (iii) Testimony: Lee Loftus, Chair of SkillPlan (iv) Columbia Institute, *Jobs for Tomorrow: Canada's Building Trades and Net Zero Emissions* 09/2017 [link]

[b] (i) Testimony: Secretary of GJA (ii) GJA web usage data (iii) GJA courses / resources [link] (iv) Testimony: Assistant General Secretary of Unite (v) Testimony: Chair of JTUC (vi) Scottish Parliament Motion S5M-10096 [link] (vii) Testimony: Secretary of Leeds Trades Union Council (LTUC) (viii) Testimony: PCS' National Policy Officer on Climate Change and Green Issues (ix) PCS, *Just Transition and Energy Democracy* 05/2017 [link]

[c] (i) ACW website [link] (ii) UNFCCC, *Just Transition of the Workforce, the creation of decent work, and quality jobs* 10/2016 [link] (iii) Testimony: Former General Secretary of EFBWW (iv) EFBWW Policy Areas [link] (v) FIEC, *Construction 2050: Building tomorrow's Europe today* 06/2019 [link] (vi) Testimony: Director General of FIEC (vii) Construction 2050: update 24/02/20 [link]