A Jobs-led Climate Transition Plan for the UK

Jonathan Essex
Peter Sims
1. Planning to meet the Climate Challenge
Facing up to Climate Reality looks like …

Antarctic ice loss has tripled in a decade. If that continues, we are in serious trouble.

… up to 66m sea level rise
What does failure look like?

This is a tens of cm – in Bangladesh
Time to walk the talk.

For hope to exceed fear we must scale up action.
Politics for the 100%

... because we can’t just have our cake and eat it...
Politics for the 100%

The Spirit Level
Why Equality is Better for Everyone
Richard Wilkinson and Kate Pickett

A book with a big idea, big enough to change political thinking, Sunday Times
A sweeping theory of everything, Guardian
Highly influential, The Times

...because we can't just have our cake and eat it...
Politics for the 100%
One Million Climate Jobs Campaign – linking trade unionists and climate change
Climate Summit

What if it's a big hoax and we create a better world for nothing?

- Energy Independence
- Preserve Rainforests
- Sustainability
- Green Jobs
- Livable Cities
- Renewables
- Clean Water, Air
- Healthy Children
- etc. etc.

[Cartoon of a conference with a speaker and audience]
Addressing climate challenge requires shift to a zero carbon, zero waste, organic farming and a sustainable rural economy.

So we must link climate, planning and economics

Green European Foundation and Greenhouse Think tank have been collaborating to scale such a plan for the UK.

To plan what is needed we to consider how many jobs are required, doing what, and where across the UK.
Focus on new jobs to create the foundation for local green economies

<table>
<thead>
<tr>
<th>Area of economy</th>
<th>Key features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>Renewable-Powered</td>
</tr>
<tr>
<td>Transport</td>
<td>Sustainable, localisation</td>
</tr>
<tr>
<td>Buildings</td>
<td>Retrofit</td>
</tr>
<tr>
<td>Waste and Resources</td>
<td>Circular Economy</td>
</tr>
<tr>
<td>Farming and Land Use</td>
<td>Organic, Rural Economy</td>
</tr>
</tbody>
</table>

This will affect supply chains (scale of production, transport), and lead to transition of manufacturing (e.g. Fewer cars, more buses; more wind turbines, fewer bricks).
Test – on a small island

Isle of Wight Transition to 2030
1,700 new jobs

A Green Transition for the Isle of Wight
A Sustainable Local Economic Strategy realised through more Green Enterprises and Employment

Jonathan Essex  Peter Sims  March 2017

Long-term (2030+)  2,000 new jobs
Prove for Local Enterprise Area

Sheffield City Region

Transition to 2030

21,500 new jobs

Long-term (2030+)
18,900 new jobs
2018: Climate Jobs Map for UK

Demonstrate jobs-led potential to strengthen climate targets

UK launch, present at COP24
Key Feature 1: Stop carbon ‘lock-in’ by plans

Capital investment, land-use, urbanisation choices have long-lasting impacts, and can ‘lock-in’ long term carbon emissions

Key Feature 2: Local, Circular Economy

Linear metabolism: cities consume resources and create waste at a high rate:

Circular metabolism cities reduce consumption of resources, pollution and maximize renewables:

Key Feature 3: Plan-led, Transition and Future Jobs

Green Region (+City) Job-led Plans
- Resource needs
- Infrastructure needs
- Service needs

Plan-led

Reduce Climate/Wider Env. Impact
- Renewable energy supply
- Retrofit buildings
- Different infrastructure

Change Economic Development
- ‘just transition’ of existing industry
- New green enterprises, including transport, circular economy, rural, waste, energy

Sustainable Communities
- Strong localised economy
- Long-term jobs

TRANSITION JOBS

FUTURE JOBS
### Key Feature 4: Democratic, Public sector enabled

<table>
<thead>
<tr>
<th>Process</th>
<th>Current system</th>
<th>Let's own it</th>
<th>New system</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Generation</strong></td>
<td>Private</td>
<td>We buy some of it</td>
<td>New public companies (national / regional / local) &amp; some private</td>
</tr>
<tr>
<td>Fossil fuels &amp; nuclear</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Renewables</strong></td>
<td>Private &amp; coops</td>
<td>Encourage investment in low carbon energy</td>
<td>Regional &amp; local public companies, coops, community groups &amp; a few private</td>
</tr>
<tr>
<td><strong>Transmission</strong></td>
<td>Private - National Grid</td>
<td>We buy it</td>
<td>National public ownership</td>
</tr>
<tr>
<td><strong>Distribution</strong></td>
<td>Private</td>
<td>We buy it</td>
<td>Regional &amp; local public ownership</td>
</tr>
<tr>
<td><strong>Supply to users</strong></td>
<td>Private &amp; a few not-for-profits</td>
<td>Dominate by The Big Six: British Gas, EDF, E.ON, npower, Scottish Power, and SSE</td>
<td>Regional &amp; local public providers, coops, small-scale private providers compete with the Big Six</td>
</tr>
<tr>
<td><strong>Regulation</strong></td>
<td>Regulation of private providers by Ofgem</td>
<td>New structures give us a real say</td>
<td>Democratic &amp; accountable providers</td>
</tr>
</tbody>
</table>
2. A Plan for Climate Jobs

What will these jobs look like?
Where will these be?
New climate jobs - where?

By population ➔ buildings, recycling, transport

By land area ➔ food, forestry, renewables  
(need grid connections)

i.e. across UK. Every job created that sustains a strong local economy creates two more in wider economy.
Sectors

- Energy (Includes offshore)
- Building Retrofit (Homes)
- Transport
- Reuse & Recycling
- Landuse, Food and Farming

- Transition Estimate = 750,600 Jobs
- Long Term Estimate = 660,900 Jobs
Methodology

- National Estimates
- Conservative Estimates
- Proven Technologies
- Infrastructure/Activity Change Based Metrics
Renewable Energy Generation

- Install wind / solar / tidal
- Maintain installations
- Upgrade grid
- Storage & demand management
Additional Energy Transition Jobs

- Offshore Wind/Tidal/Wave, Onshore Wind – sustaining and extending current delivery rate
- PV installation – restoring industry post FIT cuts
- AD/Biogas/Geothermal/Hydro
- Coal Power Electric Generation, 50% Oil and Gas Power - Total Jobs lost = > 3,000 Jobs
- Total Transition Jobs = > 365,600 Jobs
The Built Environment

- Energy retrofit - street by street
- Install energy efficiency & renewable energy
- Retrain construction workers
- Better maintenance

http://chalecommunityproject.com
Additional Building Retrofit Jobs

- GSHP => 171,000 Job-Years
- Solar Thermal => 164,000 Job-Years
- Solar PV (all buildings) => 139,000 Job-Years
- Insulation => 388,000 Job-Years
- Long Term Maintenance => 15,000 Jobs
Better Transport

- Car share schemes
- Increase public transport
- Improving cycling/walking routes and facilities
- Preventative road maintenance
Change in Transport Jobs (Long-Term)

- Bus Drivers => 265,000 Jobs
- Bus Maintenance => 69,000 Jobs
- Electric Private Vehicles Maintenance Jobs => 67,000 Jobs
- Petrol/Diesel Private Vehicles Maintenance Jobs Lost => -158,000 Jobs
- Railways => 121,000 additional jobs
Reuse & Recycling

- Repair workshops
- Deconstruction rather than demolition
- Sorting and reclaiming materials
- Totals compensated for jobs lots in landfill & incineration

https://www.habitat.org/restores/
Additional Reuse & Recycling Jobs

- Current Recycling Rate (average municipal) 45%
- Target Recycling Rate 90%
- 84,000 Jobs
- Reuse more labour intensive
Food, Land Management & Forestry

- Active woodland management
- Smallholders
- Farm workers & fruit growers
- Localised supply chain and processing businesses

Vermont Valley Community Farm LLC
Community / Other

- Trainers
- Volunteer coordinators
- Workplace mentors
- Innovation & startup support
- Support workers

Ryde Community Pool - watersidepool.co.uk/index.html
# UK Climate Jobs Estimates

<table>
<thead>
<tr>
<th>Net additional jobs per sector</th>
<th>Transition</th>
<th>Long-term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reuse &amp; Recycling</td>
<td>41,800</td>
<td>83,600</td>
</tr>
<tr>
<td>Farming &amp; Forestry</td>
<td>20,300</td>
<td>40,500</td>
</tr>
<tr>
<td>Energy Efficient Buildings – Retrofit</td>
<td>79,300</td>
<td>14,900</td>
</tr>
<tr>
<td>Better Transport</td>
<td>181,700</td>
<td>363,500</td>
</tr>
<tr>
<td>Energy Generation</td>
<td>365,600</td>
<td>103,900</td>
</tr>
<tr>
<td>Training &amp; Support Jobs</td>
<td>62,000</td>
<td>54,600</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>723,300</strong></td>
<td><strong>660,900</strong></td>
</tr>
</tbody>
</table>
Jobs Density

Map

Transition Jobs
Jobs Density Map
Long Term Jobs
Conclusion

A 3 million jobs-led transition
-> 1 million green economy foundation
-> 1 million just transition
-> 1 million local resilient economies

Transition to a different economics
-> Re-grounded
-> Re-balanced
-> Relocalised
Thank you for listening

Any Questions?

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