Draft Climate Change Plan
Friends of the Earth Scotland

Recommendations
- further effort is needed to maximise the community ownership of renewable energy schemes covered by the 'community and locally-owned' target
- plans to replace fossil fuel heating systems with low carbon alternatives should start earlier
- the Plan should commit to upgrading Scotland's homes to an EPC rating of 'C' by 2025
- the Industry chapter should not be allowed to rely on an EU scheme we will almost certainly not be part of after Brexit, and needs to spell out actions which will reduce emissions for Scotland's largest industrial plants
- the Plan should say how much carbon reduction each proposal and policy is supposed to deliver over time
- the Plan should be used as the foundation of an industrial plan which marshals the investment needed for a just transition away from fossil fuels in order to deliver a fairer and more equal Scotland

Introduction
Friends of the Earth Scotland welcomes the opportunity to make this submission. We are part of the Friends of the Earth International network - the world's largest grassroots environmental network, uniting 74 national member groups, over 2 million members and 5,000 local activist groups around the world. FoE Scotland is an independent Scottish charity with a network of thousands of supporters, and 10 active local groups across Scotland. Friends of the Earth Scotland's vision is of a world where everyone can enjoy a healthy environment without exceeding their fair share of the planet's resources, now and in the future.

Overall
The Climate Change Plan is the product of a very large amount of work and contains many welcome measures, as well as painting an attractive vision of a future Scotland as a low-carbon country. However, delays caused by the use of the TIMES model and political trade-offs have led to a Plan which sometimes lacks detail, has had limited external input and is, in some sectors, overly reliant on technological progress rather than more fundamental change. It is hard to see how progress on the plan will be properly measured when it is not clear how much any given policy is supposed to have delivered by a given date. The monitoring framework is still being developed but there is insufficient information to interrogate Scotland's financial budget.

In this response we concentrate on the energy matters covered in the plan, drawing also on the draft Scottish Energy Strategy, since this was developed in parallel with the Climate Change Plan.
Progress so far
When the steam turbines at Longannet power station ceased to turn in March 2016 there was no coal being burnt for electricity production anywhere in Scotland for the first time in about 115 years. Scotland invented much of the technology which made the Industrial Revolution possible, so this is highly significant step, a step on our way to being powered only by renewable energy. Coupled with the closure of the Cockenzie coal-fired station in 2013 and the rapid expansion of renewable energy capacity, this has meant that the Electricity sector has made an excellent contribution to Scotland's carbon reductions so far.

Action on Electricity
The acceleration of the Scottish Government's commitment to reach a grid carbon intensity of under 50g per kWh from 2030 to 2020-2025 is very welcome.

The figures in the draft Scottish Energy Strategy show that no new nuclear reactors or use of fracked gas are included in the modelling that produced the Climate Change Plan. This is very welcome, since Scotland needs neither of these unsustainable energy sources.

The continuing strong support for renewables, including the community renewables sector is also very welcome. The target of 1GW community and locally-owned renewables by 2020 is welcome but extra effort is needed to maximise the community element of these schemes.

We are sceptical that carbon capture and storage will become viable, and its pursuit is a distraction from capitalising on our renewable energy resources and leaving fossil fuels behind entirely. However, biogas with CCS only becomes important in the Plan in the late 2020s so there is time to review this strategy, including when higher ambition is enshrined in a new Climate Change Act.

Action on Heat
The Plan has a high level of ambition but it is not clear that the policies outlined will deliver enough. Beyond 2025 a rapid transition away from gas heating is proposed for both domestic and non-domestic properties. Many modern properties are already in a position to make this kind of change to, for instance, air source heat pumps, when they next replace their heating system, so there is an element of this policy which could be facilitated before 2025. All new construction should install only low-carbon heating or be connected to district heating. We welcome the just-released consultation on the regulation of district heating, the introduction of which would make big difference to the widespread use of district heating in Scotland.

Action on Energy Efficiency
With others, we have called for all homes to be brought up to an EPC rating of 'C' by 2025 to reduce emissions and help people out of fuel poverty. We are disappointed that there is no action as strong as this in the Plan.
Action on Industry
The Climate Change (Scotland) Act 2009 required Scotland's emissions to reduce by at least 3% every year from 2020. The table below shows that the highest-emissions sectors - transport, agriculture and industry - have been and are proposed to continue to be the sectors which make the least fair contribution to these percentage reductions. The Industry sector is the third highest-emitting sector and the one with the lowest proposed annual reductions. The Industry chapter has received little attention from Committees and is not listed in the inquiry remits for any of the four Committees looking at the Climate Change Plan.

<table>
<thead>
<tr>
<th>Sector</th>
<th>2014 emissions</th>
<th>Annual ave change 1990-2014</th>
<th>Annual ave change 2014-2032</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport</td>
<td>12.9</td>
<td>-0.1%</td>
<td>-1.3%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>10.7</td>
<td>-1.0%</td>
<td>-1.4%</td>
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<tr>
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<td>-2.0%</td>
<td>-0.8%</td>
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<tr>
<td>Electricity</td>
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<td>-1.3%</td>
<td>-4.5%</td>
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<tr>
<td>Residential</td>
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<tr>
<td>Services</td>
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<td>-3.9%</td>
</tr>
<tr>
<td>Waste</td>
<td>2.2</td>
<td>-3.1%</td>
<td>-3.1%</td>
</tr>
</tbody>
</table>

Achieved and predicted annual reductions by sector, highest-emissions sectors first; figures in red are less than the 3% overall target required across all sectors.

Now that Longannet power station is closed the top five largest point sources emitting climate change gases in Scotland are one fuel refinery, two chemicals plants, one industrial combined heat and power plant and one cement works, which emitted 4MtCO\(_2\)e between them in 2015.

A very significant part of the proposals to reduce emissions in future is for Scotland's industrial sector to continue to participate in the EU emissions trading scheme, the impact of which the plan estimates out to 2032. To be clear this means that Scotland's industrial plants could continue to be high emissions but a paper exercise would let us claim some of the credit for plants elsewhere in Europe which become low carbon. A footnote in the Plan explains that the impact of Brexit has not been included in any of the work for the Plan. The new Climate Bill will propose that Scotland reports its emissions principally as gross territorial emissions, that is, not making allowance for any trading in the EU ETS. This change is broadly supported and will allow MSPs to see the full impact of the strong progress we have made in the energy sector. It would be very confusing to try to continue to give credit to the industrial sector for trading in the EU ETS - even if we are still allowed to participate in it. The EU ETS should be taken out of the figures in this chapter and emissions pathways reported that show the actual emissions expected from industry in Scotland. After all, high energy bills will see Scottish industry become increasingly uncompetitive in Europe if it continues to rely on high-carbon techniques.
The Plan predicts industrial emissions will fall (partly because of the EU ETS) to 2027 and then increase. There is no explanation provided about what changes in industrial output, fuel mix and technology are assumed in producing these figures.

We question the Plan’s reliance on Carbon Capture and Storage technology to deliver results given its lack of progress globally, and here in Scotland. The UK Government’s cancellation of a £1bn grant competition, after almost 10 years, led to the only two remaining competitors cancelling their projects. The viability of CCS on a large scale is doubtful and pursuing this technology could direct investment away from more credible and economic solutions.

There are a number of sensible actions that are proposed in this Industry chapter, which could help many smaller businesses, and the Circular Economy strategy and forthcoming bill could also make a difference. But it is hard to see any actions proposed making much difference to the big high energy users mentioned above.

A Just Transition
The transformation to a low carbon economy offers the chance to build a fairer, more equal Scotland. It is our view that involving workers and communities currently dependent on jobs in oil and gas and other high carbon sectors, as well as broader civil society in planning for this transition, is essential to its success and resilience.

We urge the Scottish Government and Parliament to use the Climate Change Plan as the foundation of an industrial plan which marshals the investment needed for a just transition to a modern low-carbon economy, in ways which protect workers’ livelihoods and tackle disadvantage in the labour market here in Scotland. A Just Transition Commission that includes union, community and environmental representatives should be set up to oversee and take forwards the transformation to a low-carbon economy.

Employment in the oil and gas industry has already fallen substantially because of the low oil price and the exhaustion of the easiest and cheapest to extract reserves. This trend will continue and its impact will be strongest in the North East and Shetland but the pre-eminence of this sector in Scotland’s productive economy means that the consequences will ripple outwards to the rest of the country. Scotland needs to create new green industry to replace these vital productive jobs and enable the skills of oil and gas workers to be redeployed or updated for new technologies.

The transition, however, will be much more far-reaching than its impact on oil and gas, and greater than the shift to renewable energy. All sectors of the economy will be affected, some radically, including transport, construction and manufacturing. Making these changes can employ a lot of people, and they could also make possible cheaper energy costs; opportunities for reducing the working week; increasing workers skills sets through training in low carbon industries; bringing work to areas of high unemployment; recognising and rewarding work in the informal economy; and helping people into the labour
market. But these outcomes depend on how the transition is done. If left to market forces, social and environmental justice will be add-ons at best; at worst the social dislocation and high unemployment experienced as a result of de-industrialisation and pit closures may be repeated. A just transition will only happen if the people affected are involved in making it.

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