Respondent Details	
Name:	Tom Gilroy
Organisation:	Britain's Energy Coast West Cumbria

☐	Business representative organisation/trade body
☐	Central Government
☐	Charity or social enterprise
☐	Individual
☐	Large business (over 250 staff)
☐	Legal representative
☐	Local Government
☐	Medium business (50 to 250 staff)
☐	Micro business (up to 9 staff)
☐	Small business (10 to 49 staff)
☐	Trade union or staff association
☐ √	Other (please describe): ***Public/private funded organisation for delivery of economic development in West Cumbria***

The consultation document sets out the Government's proposed approach to the longer term management of the UK's plutonium stocks for public scrutiny and consultation. Comments on any aspect of this issue are welcome, but the key questions posed in this consultation are:

No	Question
Q1	Do you agree that it is not realistic for the Government to wait until fast breeder reactor technology is commercially available before taking a decision on how to manage plutonium stocks?
Response	Yes, there are a number of significant drivers for change including: • the need for the ongoing refurbishment or replacement of specialist and costly plutonium storage facilities; • the radioactive decay of plutonium to americium, which is more challenging from a dose and heat perspective, thereby making the plutonium more complex and costly to handle over time; • the finite life of packaging and the likely need for periodic re-packaging; • the inherent long-term unsustainability of long-term storage with site clearance at Dounreay by 2078 and Sellafield by 2120; • the early need to more accurately characterise the inventory for eventual disposal to a geological disposal facility; and • the responsibility of this generation not to defer difficult decisions and costs to the next generation. These drivers provide significant reasons to implement options other than the continued storage of separated plutonium.
Q2	Do you agree that the Government has got to the point where a strategic sift of the options can be taken?
Response	Yes. We agree with Government that "MOX fuel fabrication is a proven and available technology that offers greater certainty of success" in disposing of the UK civil plutonium stockpile. We therefore urge Government to now undertake a full generic sustainability assessment for public examination that sets out the case for plutonium recycling and why it is preferable to the immobilization options. Such an assessment should include costs, environmental, socio-economic, intergenerational, safety, security, proliferation, political, international, technical, transportation, radiological, disposability, and carbon emission impacts to fully underpin a plutonium recycling policy. Much of this work has already been done by the Nuclear Decommissioning Authority. We also urge Government to consider the policy case for utilising MOX fuel in reactors, particularly in developments at Sellafield. Estimates suggest there is sufficient plutonium in the UK stockpile to supply two new build reactors, of the type currently considered for construction in the UK, with 30% MOX fuel loading for 60 years. For example, a European Pressurised Reactor (EPR) would generate about 12.7 Terrawatt/hours (TWhr) per year of electricity. Twin MOX burning EPRs could add about 25 TWhr per year for 60 years, with the MOX contribution over twin reactor lifetime being about 450 TWhrs. This would be a significant contribution to

	the supply of low carbon electricity in the UK, assisting the achievement of Government carbon reduction and energy security targets. It would reduce demand for natural uranium extraction, transportation and processing potentially producing a very positive net CO2 benefit. Consuming the plutonium stockpile 'in situ' could also provide very significant safety and security benefits and further build Britain's Energy Coast as a globally recognised centre for leading nuclear, environmental and related technologies.
Q3	Are the conditions that a preferred option must in due course meet, the right ones?
Response	We note the proposed conditions, that the preferred option: • must be achievable and deliverable • must be shown to be capable of meeting health, safety and environmental requirements as well as meeting non-proliferation and security objectives • must demonstrate that it provides value for money and is of overall benefit to the UK. We consider that the MOX fuel option meets all these objectives and now urge Government to underpin its preliminary policy view by fully making the case for plutonium recycling while addressing the practical implementation issues.
Q4	Is the Government doing the right thing by taking a preliminary policy view and setting out a strategic direction in this area now?
Response	Yes, but Government must now progress to a fully evidenced policy commitment to plutonium recycling. We recognize that a small proportion of the UK civil plutonium stockpile that is unsuited to recycling will need to be directly disposed to a geological repository and therefore we agree it is also important to continue work on immobilization and disposal options.
Q5	Is there any other evidence government should consider in coming to a preliminary view?
Response	We believe any other evidence could be captured through a public consultation on a generic sustainability assessment of the MOX option and why it is preferable to immobilization and disposal. The Smith School of Enterprise and the Environment study "A low carbon nuclear future: Economic assessment of nuclear materials and spent nuclear fuel management in the UK" has now been published. The study has examined and derived example costs for a range of Scenarios addressing the UK stocks of nuclear materials and spent nuclear fuel. One of the conclusions states, "It is also clear that, in the UK, there is now an opportunity to develop an holistic approach to nuclear power – combining the assessment of backend legacy materials with the opportunities offered by new-build development." We urge government to engage further with The Smith School as part of the ongoing consultation. We consider a Government commitment to utilise MOX fuel in reactors, particularly in developments adjacent to the Sellafield site, would avoid the need for commercial utilities to develop the safety case and licensing requirements for MOX use; avoid the

	security issues associated with the transport, receipt and storage of fresh MOX fuel and avoid the interim storage of spent MOX fuel at nuclear new build sites, and avoid the transport of spent MOX fuel to long term storage prior to encapsulation and disposal. A further consideration is for government to consider the employment potential of long term high end science and engineering careers, which drives education and training in the Energy sector. This will support the long term strategic approach for building UK capability in the future and also support and build Britain's Energy Coast as a globally recognised centre for leading nuclear, environmental and related technologies as referred to in 2 above.
Q6	Has the Government selected the right preliminary view?
Response	Yes, the MOX route for consuming the civil plutonium stockpile appears the least cost option which can also assist other Government policy objectives (security of energy supply and low carbon generation). We believe that Government is now able to fully demonstrate that plutonium recycling policy has clear advantages over a plutonium immobilization and disposal policy while taking forward other work to address the practical implementation issues. If government does not choose this preliminary view and goes with a disposal option, then considerable new plutonium storage capacity will be needed at Sellafield prior to eventual disposal in a potential repository (wherever located) of around 100 tonnes of plutonium. A bigger repository would also be needed tin addition to any security concerns.
Q7	Are there any other high level options that the Government should consider for long-term management of plutonium?
Response	No, we believe that the Government has fully considered all the viable options