Title: Gas Transporter Licence **IA No:** DESNZ012(F)-23-HICCD **RPC reference No:** N/A **Lead department or agency:** Department for Energy Security and Net Zero **Other departments or agencies:** N/A	**Impact Assessment (IA)** **Date: 13/06/2023** **Stage:** Final **Source of intervention:** Domestic **Type of measure:** Primary legislation **Contact for enquiries:** energybill2021@beis.gov.uk

Summary: Intervention and Options

RPC Opinion: Not Applicable

Cost of Preferred (or more likely) Option (in 2020 prices)			
Total Net Present Social Value	**Business Net Present Value**	**Net cost to business per year**	**Business Impact Target Status**
£0m	£0m	£0m	Not a regulatory provision

What is the problem under consideration? Why is government action or intervention necessary?

The deployment of hydrogen is one of a handful of new, low carbon solutions that will support UK's transition to net zero. To overcome market barriers and realise the contribution these technologies can make to achieving the Government's statutory carbon emissions reduction targets, the Government has announced a number of measures aiming to accelerate deployment, including the hydrogen transport business model (HTBM). This impact assessment considers the primary provisions required for the allocation of gas transporter licences and the modifying of conditions within gas transporter licences (for the purposes of setting up a Regulated Asset Base (RAB)-style price control framework) which are required to deliver the HTBM.

What are the policy objectives of the action or intervention and the intended effects?

The aim of the HTBM is to provide funding for long-term revenue support which will enable the private sector (and Government) to take Final Investment Decisions (FIDs) on hydrogen transport infrastructure projects. As such, government is seeking to bring forward legislation which will enable the implementation of a HTBM, including the allocation of gas transporter licences and the modifying of conditions in gas transporter licences for hydrogen transport infrastructure.

The primary objective of the primary legislation covered by this impact assessment is to ensure that gas transporter licences, with conditions allowing for a RAB-style price control for hydrogen, are allocated to hydrogen transport projects deemed necessary by HMG. Throughout, 'necessary projects' refers to transportation projects which will connect producers and end-users that are deemed to be necessary, affordable, and value for money by HMG. A gas transporter licence, and the conditions within a gas transporter licence, are required to set up a RAB-style price control framework. The RAB-style price control will form part of the HTBM, alongside an external subsidy mechanism (delivered through revenue support contracts). The RAB-style price control and external subsidy mechanism can be used together or separately. However, at the start of the hydrogen economy (in a nascent market) a RAB-style price control will likely need to be used in conjunction with the external subsidy mechanism. Therefore, allocating gas transporter licences, with licence conditions that allow for a RAB-style price control to be introduced, is integral to the delivery of the HTBM.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

The policy options considered for meeting the business model objectives are:

Policy option 1 (counterfactual): Do nothing/business as usual. Under this approach there is no intervention in the allocation of gas transporter licences or modifying of conditions in gas transporter licences. **Policy option 2**: Legislate for powers to permit the Secretary of State (SoS) to designate a person with an existing gas transporter licence to allow the SoS to modify licence conditions to introduce a RAB-style price control for a designated hydrogen pipeline project. **Policy Option 3 (preferred option)**: Legislate for powers that permit the SoS to designate a person, including existing gas transporter licence holders or non-licence holders to allow SoS to grant or extend a gas transporter licence and/or modify conditions in a gas transporter licence to introduce a RAB-style price control for a designated hydrogen pipeline project.

Will the policy be reviewed? It will not be reviewed. **If applicable, set review date:** n/a				
Is this measure likely to impact on international trade and investment?		No		
Are any of these organisations in scope?	**Micro** No	**Small** No	**Medium** No	**Large** No
What is the CO_2 equivalent change in greenhouse gas emissions? (Million tonnes CO_2 equivalent)		**Traded:** n/a	**Non-traded:** n/a	

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible: _____ Date: 13/06/2023

Summary: Analysis & Evidence

Policy Option 4

Description:

FULL ECONOMIC ASSESSMENT

Price Base Year 2020	PV Base Year 2022	Time Period Years n/a	Net Benefit (Present Value (PV)) (£m)		
			Low: n/a	**High:** n/a	**Best Estimate:** n/a

COSTS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	n/a		n/a	**n/a**
High	n/a		n/a	**n/a**
Best Estimate	n/a		n/a	**n/a**

Description and scale of key monetised costs by 'main affected groups'

The estimated cost of this primary legislation, by itself, is zero. There is no monetised cost associated with providing SoS powers to designate a person and a hydrogen pipeline project, and allow SoS to grant or extend a gas transporter licence and/or modify conditions in a gas transporter licence, compared to the counterfactual option. Costs may be incurred at a later date if/when a hydrogen transport provider in receipt of a gas transporter licence with conditions allowing for a RAB-style price control for hydrogen transport infrastructure is awarded HTBM support. However, the scale of these costs will depend on policy decisions that go beyond the design of these primary provisions and is therefore out of scope of this impact assessment.

Other key non-monetised costs by 'main affected groups'

There may be administrative and familiarisation costs which have not been monetised in this impact assessment. This could include costs incurred to award licences and/or modify conditions licences and the costs to operators when applying for a licence or having their conditions in a licence modified. However, we do not predict that this primary legislation will change the number of gas transporter licences business apply for and are granted or extended and/or modified. Rather, this legislation ensures HMG has full control of the entire HTBM allocation process, where a gas transporter licence, and conditions in a gas transporter licence, are required for the RAB-style price control and assumes that the total quantity of licences applied for and granted or extended and/or modified under this policy option will be the same as the counterfactual. This legislation is being introduced to ensure there is no risk that licences are not awarded to projects deemed necessary by HMG.

BENEFITS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	n/a		n/a	n/a
High	n/a		n/a	n/a
Best Estimate	n/a		n/a	n/a

Description and scale of key monetised benefits by 'main affected groups'

The primary legislation is enabling in nature, and therefore the estimated benefit of this primary legislation, by itself, is zero. Benefits may be realised when a gas transporter licence and conditions in a gas transporter licence for hydrogen transport infrastructure are awarded HTBM support to stimulate the deployment of transport infrastructure. Benefits could include reduction in carbon emissions, potential cost savings to end users of displacing fossil fuel use, and wider economic benefits such as UK supply chain growth and job creation.

Other key non-monetised benefits by 'main affected groups'

There are no direct non-monetised benefits for the reasons, for the same reasons as outlined above.

Key assumptions/sensitivities/risks	Discount rate (%)	n/a

This impact assessment assumes this primary legislation by itself will have no impact on businesses and consumers.

1. Problem under consideration

1.1 The deployment of hydrogen is one of a handful of new, low carbon solutions that will support the UK's transition to net zero.

1.2 In 2021, the UK Government published the Net Zero Strategy[1], which set out policies and proposals for decarbonising all sectors of the UK economy to meet our net zero target by 2050. This preceded the Hydrogen Strategy[2] and the Prime Minister's Ten Point Plan (10PP)[3], along with other notable publications that set out the deployment of the UK hydrogen economy as a UK Government priority.

1.3 Building on the 10PP and Hydrogen Strategy, the British Energy Security Strategy (BESS)[4] doubled our 5GW low carbon hydrogen production capacity ambition to deliver up to 10GW by 2030, subject to affordability and value for money, with at least half of this coming from electrolytic hydrogen.

1.4 Hydrogen transport and storage infrastructure will be critical enablers for the necessary growth in the hydrogen economy required to meet this 10GW ambition. Alongside connecting producers and consumers, a well-developed hydrogen transport and storage network will be especially valuable for resilience, energy security and system balancing.

1.5 However, transport and storage infrastructure projects typically have lengthy development lead times, high capital costs, and uncertain financial investment returns, especially in a nascent market. This means infrastructure is unlikely to materialise in the absence of supportive policy and commercial frameworks which de-risk investment. For this reason, the BESS also committed government to "designing, by 2025, new business models for hydrogen transport and storage infrastructure, which will be essential to grow the hydrogen economy".

1.6 To realise the critical enabling role of hydrogen transport and storage infrastructure, government is seeking to bring forward legislation to enable the implementation of a HTBM and a Hydrogen Storage Business Model (HSBM).

1.7 The proposed HTBM will consist of a RAB-style price control and/or an external subsidy mechanism. In most cases, during the early years, a RAB will operate in conjunction with an external subsidy mechanism (RAB and external subsidy mechanism) to provide the HTBM. This approach seeks to provide an appropriate business model to encourage investment in and development of certain hydrogen pipelines transporting hydrogen as a gas, the technology identified as the focus of the HTBM. As the hydrogen market matures, and the user base for this infrastructure increases, the need for an external subsidy will likely reduce and only a RAB-style price control will be needed.

1.8 The GB gas market is regulated by the Gas and Electricity Markets Authority (GEMA), operating through the Office of Gas and Electricity Markets (Ofgem). The regulatory framework for Ofgem in relation to gas is set out through the Gas Act 1986[5] (the 'Gas Act'). Hydrogen is captured within the definition of gas which is set out in section 48(1) of the Gas Act. Therefore, hydrogen is currently regulated by Ofgem through the Gas Act.

1.9 The Gas Act prohibit certain activities, including the transportation of gas (the definition of gas includes hydrogen), unless the person carrying out that activity is licenced, exempt from the requirement for a licence, or eligible for an exception to the prohibition on unlicenced activities. Ofgem can grant licences through section 7(2) of the Gas Act.

1.10 For a gas transporter, licence conditions can be applied to a particular licence to set out financial elements of a price control. It is through these conditions that a RAB-style price control is provided for gas transporters. As such, the HTBM RAB-style price control will be facilitated via a gas transporter licence, and conditions in a gas transporter licence.

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[1] https://www.gov.uk/government/publications/net-zero-strategy

[2] https://www.gov.uk/government/publications/uk-hydrogen-strategy

[3] https://www.gov.uk/government/publications/the-ten-point-plan-for-a-green-industrial-revolution

[4] https://www.gov.uk/government/publications/british-energy-security-strategy

[5] https://www.legislation.gov.uk/ukpga/1986/44/contents

1.11 This impact assessment considers the primary legislation required to grant or extend a **gas transporter licence and modify conditions in a gas transporter licence** for the purpose of setting up a RAB-style price control which is integral to the delivery of the HTBM.

2. Policy objective and rationale for intervention

2.1 HMG intends to be able to guarantee that hydrogen transport infrastructure projects (i.e. pipelines transporting hydrogen as a gas) which are deemed (by HMG) to be necessary, can be awarded HTBM support. The HTBM consists of a RAB-style price control mechanism, and/or an external subsidy mechanism. In most cases, a RAB will operate in conjunction with an external subsidy mechanism (RAB + external subsidy mechanism) to provide full HTBM support.

2.2 As such, this legislation is designed to provide certainty that suitable pipelines transporting hydrogen as a gas can be granted a RAB-style price control at the discretion of HMG through the Department for Energy Security and Net Zero Secretary of State (SoS).

2.3 A RAB provides investors with sight of a reasonable return (and recovery of costs) through charges to users. We consider this model as the most effective approach to encourage investment in and development of this type of infrastructure. The model is intended to address the following key risks for hydrogen transport providers:

- **Uncertain Demand**: A RAB-style price control alongside an external subsidy mechanism[6] can provide increased certainty and revenue visibility to facilitate investment (as well as protection to users from prohibitive charges). This certainty and visibility will give confidence to investors that investing in this infrastructure will allow them to recover costs and receive a reasonable rate of return even in a nascent hydrogen economy, where there is uncertainty around number and frequency of users of the pipeline or network.
- **Limited users initially**: A RAB-style price control working alongside an external subsidy mechanism can overcome the inevitable small user-base expected at the beginning of the life of the pipeline or network. A RAB model on its own would likely cause prohibitive costs if it was left to users alone to fund this high-cost infrastructure. However, the addition of an external subsidy mechanism allows for user costs to remain reasonable, encouraging users to join the pipelines/networks and, therefore, providing investors with an ability to obtain a revenue.
- **High upfront costs**: A RAB-style price control alongside an external subsidy mechanism is the most suitable business model for these hydrogen pipelines/networks. These pipelines are high cost, even when existing natural gas assets are repurposed. A RAB, by sharing risk between investors and users and providing a stable regulatory environment, can reduce the cost of capital for investors. This will encourage the private investment needed to fund the construction of these pipelines/networks.
- **Monopolistic tendencies**: Hydrogen pipelines/networks are likely to become natural monopolies in time. As the need for large-scale pipeline networks grows, it becomes more and more economically efficient to have just one network – as opposed to multiple networks within the same geographical area. A RAB-style price control mechanism also protects consumers against this market failure of natural monopoly, by capping network user charges (through regulation). This is how electricity and gas networks operate today: natural monopolies regulated through network price control mechanisms.

2.4 The HTBM is one of a range of government interventions intended to facilitate the deployment of hydrogen projects that will be necessary for the Sixth Carbon Budget and net zero targets. As such, HMG intends to be able to guarantee that hydrogen transport infrastructure projects which are deemed necessary, can be awarded full HTBM support: a RAB-style price control mechanism, alongside revenue support (via an external subsidy mechanism).

[6] The primary legislation necessary for the external subsidy mechanism is considered in a separate Impact Assessment: https://bills.parliament.uk/bills/3311/publications

2.5 The Gas Act provides Ofgem powers to regulate hydrogen as hydrogen is captured within the definition of gas in the Gas Act. The Gas Act already provides powers to Ofgem to design and allocate a RAB-style price control to transport providers wishing to transport hydrogen as a gas through onshore pipelines in Great Britain.

2.6 Ofgem has powers (via the Gas Act) to grant or extend gas transporter licences and modify conditions in gas transporter licences. Licence conditions in a gas transporter licence are conditions that apply to a particular licence and set out the financial elements of the price control. It is through these licence conditions that Ofgem can set a RAB-style price control mechanism. Ofgem currently does this for natural gas networks through the setting of the RIIO framework (a RAB-style price-control mechanism).

2.7 This has some important ramifications. The Authority/Ofgem is currently solely responsible for the design and allocation of a RAB-style price control framework for hydrogen. This is unlikely to be an optimal approach within the context of the HTBM. Hydrogen is a highly nascent market, and its development is largely being driven by Government policy. This Government policy push, paired with the nascency/lack of market maturity means there is a need for Government to support to generally intervene through subsidy mechanisms but also through regulation. This is certainly the case for the HTBM, where we foresee a need for an external subsidy mechanism to provide some sort of revenue support, paired with a regulated returns approach.

2.8 The transport projects we are likely to see will also be first-of-a-kind (FOAK), and their strategic coherence will be tied with decisions on the Hydrogen Production Business Model (HPBM) allocation rounds and wider decisions on the cluster sequencing. There will be complicated policy trade-offs to be made when considering what transport projects should be built and by when, and we think that Government will be better placed in making these trade-offs, including considerations around the subsidy design.

2.9 Ofgem would still have the power to design and allocate a RAB-style price control for hydrogen. However, HMG will also now have powers in relation to design and allocation of the RAB-style price control. Roles and responsibilities over allocation go beyond this Impact Assessment.

2.10 Through these primary powers, we seek to expand SoS's powers so that Government has the legislative basis to take a leading role in both the design and allocation of a RAB-style price control mechanism, as part of our HTBM.

3. Option analysis

3.1 List of policy options under consideration

3.2 Policy Option 1 (counterfactual): Do nothing/business as usual. This option uses only the existing Gas Act powers. From these existing Gas Act powers, Ofgem can grant or extend licences (such as a gas transporter licence) and set and/or modify conditions in a licence which allow for a RAB to be introduced. However, this policy option would mean that the Authority/Ofgem is solely responsible for the granting or extending of gas transporter licences and modification of conditions in gas transporter licences (and thus the design and allocation of RAB-style price control framework for hydrogen). As hydrogen is a nascent market and its development is largely being driven by Government policy, this approach is unlikely to be optimal within the context of the HTBM. Further, it is HMG's view that hydrogen transport projects are likely to be FOAK, and their strategic coherence will be intimately tied to decisions on the HPBM allocation rounds and wider decisions on the cluster sequencing. As such, there will be complicated policy trade-offs regarding what transportation projects should be built and by when, and we think that Government will be better placed in making these trade-offs, including considerations around the subsidy design. Therefore, we have concluded not to pursue this policy option.

3.3 **Policy Option 2: Legislate for powers that permit the SoS to designate only existing gas transporter licence holders with hydrogen pipeline projects. Subsequently, allow SoS to**

modify conditions in a gas transporter licence for a designated hydrogen pipeline project, for the specific purpose of introducing a RAB-style price control.. In this option, SoS is given powers to designate a person with a hydrogen pipeline project, and then modify the conditions of a gas transporter licence for a designated hydrogen pipeline project that facilitates a RAB-style price control for hydrogen transport infrastructure projects. This is based on the Nuclear RAB approach (through the Nuclear Energy (Financing) Act)[7], whereby SoS has been granted powers to introduce a RAB for funding nuclear energy projects by modifying a company's existing electrical generation licence conditions. A similar approach for hydrogen would enable SoS to make use of existing gas transporter licences, meaning new licences do not have to be created and granted specifically for hydrogen. SoS would have the power to designate existing gas transporter licence holders and modify the conditions of a gas transporter licence (which has already been granted by Ofgem under the Gas Act 1989) to facilitate a RAB for hydrogen transport infrastructure projects. As such, a third party (i.e. Ofgem) cannot overrule the decision of SoS, and a RAB-style price control is provided for these hydrogen transport projects. However, this approach means that an existing gas transporter licence must already be held by the proposed hydrogen pipeline operator. In other words, SoS does not have full control over the allocation of licences (e.g., new gas transporter licence applications) and, therefore, allocation of the HTBM. This option could limit new entrants to the market, which could impede competition and potentially lead to higher costs. This in turn could increase the costs incurred by users of the RAB and the funding required for the external subsidy mechanism.

3.4 Policy Option 3: Legislate for powers that permit the SoS to designate an entity, including existing gas transporter licence holders or non-licence holders, with a hydrogen pipeline project. Subsequently, allow SoS to grant or extend a gas transporter licence and/or modify conditions in a gas transporter licence, for the specific purpose of introducing a RAB-style price control, to a designated hydrogen pipeline project. With this approach SoS will first be required to designate a person with a hydrogen pipeline project, who may or may not hold an existing gas transporter licence. This policy option is an extension of the powers outlined in Policy Option 2 such that SoS can designate an existing gas transport licence holder or a non-licence holder's hydrogen pipeline project. This means the full HTBM (RAB + external subsidy mechanism) can be awarded to new entrants to the market, rather than restricting this to current operators that hold gas transporter licences. In addition, these powers will restrict SoS to only be able to grant or extend a new gas transporter licence and/or modify a condition in a gas transport licence to a designated hydrogen pipeline project, therefore, limiting SoS powers solely to hydrogen and specifically where a RAB-style price control framework is sought for hydrogen pipeline infrastructure. This is the preferred policy option as it provides HMG with full control over the allocation of the HTBM while still enabling HMG to work within the confines of the existing licencing regime framework.

Preferred option

3.5 The Department for Energy Security and Net Zero (referred to from this point forward as 'the Department') considers that policy option 3 is the most viable approach to achieving the policy objectives set out in section 2.

3.6 The Department assesses that securing this option will help to achieve the policy objective of providing certainty that gas transporter licences for hydrogen transport infrastructure projects (namely, large-scale onshore pipelines transporting hydrogen as a gas) will be granted at the discretion of the SoS and allow for a RAB-style price control to be introduced. If HMG can allocate the HTBM to projects, this will provide selected projects and investors with the confidence needed to reach FIDs on hydrogen transportation infrastructure. If part of the HTBM allocation is outside of

[7] https://www.legislation.gov.uk/ukpga/2022/15/contents/enacted

HMG control (i.e., option 1, the counterfactual), this introduces additional complexity and uncertainty for projects which could affect their ability to reach final investment decisions.

3.7 A consultation on proposals for hydrogen transport and storage business models ran from 31 August 2022 to 22 November 2022[8]. This sought views on high level business model design options to provide revenue support for hydrogen transport and storage, which these primary powers will enable. The consultation gathered feedback on stakeholders' preferred business model design options and a government response to the consultation will be published later in 2023.

3.8 The existing legislative framework under the Gas Act has been developed over time, with a mature gas network in mind. At present, there is no large-scale hydrogen transport infrastructure in place; due to the nascency of the market. As such, our starting point (from a licensing regime perspective) is to use what already exists, in the absence of an already functioning market and network.

3.9 As the Gas Act already provides a licencing regime for transport providers, our aim is to work within the confines of this existing regime to get our desired outcome. Currently, we do not want to create a parallel legislative framework specific to hydrogen and, as such by using the existing framework, HMG can continue to rely on an established economic regulator (Ofgem) who has expertise in gas transportation, but with powers enabling SoS to ensure that a RAB-style price-control can be appropriately designed and allocated.

3.10 Planned hydrogen transportation projects so far are mostly proposals by incumbent gas network operators, familiar with this licensing regime. This option will therefore be beneficial to applicants too, but will not block new entrants to the market, which option 2 could.

3.11 To realise the critical enabling role of hydrogen transport infrastructure, new primary powers are required which will allow the following:

- Permit the SoS to designate a person with a hydrogen pipeline project, including an existing gas transporter licence holder or a non-licence holder.
- Permit SoS to grant a gas transporter licence, for the specific purposes of enabling financing of a hydrogen pipeline, to a 'designated hydrogen pipeline project.
- Permit SoS to modify existing gas transporter licence conditions of a designated hydrogen pipeline project for the specific purpose of facilitating or supporting the financing of a hydrogen pipeline project.

3.12 The SoS will only be able to use these powers for the explicit purpose of facilitating or supporting the financing of certain hydrogen transport infrastructure through the design and allocation of a RAB-style price control mechanism. As such, these powers can only be used for the purposes of supporting and facilitating investment in the design, construction, commissioning, or operation of hydrogen transport infrastructure projects.

3.13 These powers should have the effect of ensuring Government can lead the detailed design, determination, and allocation of a RAB-style price control mechanism whilst using the existing legislative framework laid out in the Gas Act. It should also allow flexibility and optionality on the exact configuration of roles and responsibilities between Government and Ofgem. The powers outlined here provide the following optionality:

- Allow SoS to carry out all of the detailed design of the price control and allocate the RAB-style price control framework as part of the HTBM, with Ofgem taking an advisory role (as they have done for CCUS T&S) in the design phase;
- Allow SoS and Ofgem share the design process, including that of the RAB-style price control, and SoS will continue to lead the allocation of the HTBM; or
- Allow SoS to only lead the allocation, whilst allowing Ofgem to carry out the detailed design of the price control.

3.14 These powers are designed such that they do not extend to natural gas and are solely limited to hydrogen and specifically in relation to the creation of a RAB-style price control for hydrogen transport infrastructure. Further to this limitation, these powers should also be limited in time. This is because the enduring approach to running the price controls and determining strategic need for hydrogen transport infrastructure has not yet been finalised (and likely will not be finalised for some years). However, as mentioned previously, we foresee that beyond FOAK projects, the Authority should be in a position to independently do the full work of an Economic Regulator (including

[8] https://www.gov.uk/government/consultations/proposals-for-hydrogen-transport-and-storage-business-models.

allocation and design of the price control), whilst there will also be a role for the Future System Operator in the context of strategic need for hydrogen network infrastructure.

4. Costs

4.1. Costs to government or economic regulator

4.2 The estimated cost of this primary legislation, by itself, is zero. There is no monetised cost associated with providing SoS powers to direct Ofgem to issue or extend a gas transporter licence and/or modify conditions in a gas transporter licence. Costs may be incurred at a later date if/when a hydrogen transport provider in receipt of a gas transporter licence, and conditions in a gas transporter licence, is awarded HTBM support. However, the scale of these costs will depend on policy decisions that go beyond the design of these primary provisions and is therefore out of scope of this impact assessment.

4.3 The counterfactual and preferred policy option assume that the total quantity of licences applied for and granted, extended or modified will not change. Rather, this legislation intends to provide HMG with autonomy over the allocation of gas transporter licences, thereby, mitigating the risk that licences are not awarded to projects deemed necessary by HMG.

4.4 In the counterfactual we anticipate that Ofgem would still grant/extend/modify the same number of licences, as in our preferred policy option. However, HMG should retain full control of this decision, which takes into account the national transition to net zero and involves stimulating investment in new markets and FOAK projects.

4.5 These powers will mean that hydrogen transportation projects that HMG wants to support can be provided a RAB-style price control mechanism. Along with other elements of the HTBM, including the proposed external subsidy mechanism, this will stimulate investment in a nascent market, including some FOAK projects.

4.6 These powers provide the option for the Department, Ofgem, or a combination to undertake the detailed design work. The exact division can be considered in slower time and is outside the scope of this Impact Assessment.

4.7 Costs to business

4.8 This primary legislation does not by itself, directly create any additional costs to businesses. Businesses would continue to apply for gas transporter licences or modifications to their licences via an application process (as is the case for the counterfactual). It is assumed that the total quantity of licences applied for and granted or extended will not change. Further, we predict that many businesses applying for HTBM support will be incumbent gas network operators already familiar with Ofgem's licencing process. This will therefore reduce familiarisation costs, for both the counterfactual and preferred policy option.

4.9 For new entrants into the gas transportation market, there may be administrative and familiarisation costs which have not been monetised in this impact assessment as these costs will be the same for the counterfactual and preferred policy option.

4.10 Costs to consumers

4.11 This primary legislation does not, by itself, directly create any additional costs to consumers.

5. Benefits

5.1 The estimated benefit of this primary legislation, by itself, is zero. Benefits will be realised following the enactment of the full legislative package (primary and any necessary secondary legislation), finalisation of the design of the HTBM, implementation of the HTBM and the consequential

construction and operation of large-scale pipelines. This infrastructure will enable the realisation of our aim to reach a large, liquid, and competitive hydrogen market enabled by an integrated and resilient network with multiple entry and exit points.

5.2 The potential benefits could include a reduction in carbon emissions, potential cost savings to end users of displacing fossil fuel use, and wider economic benefits such as job creation.

6. Other impacts

6.1 Potential trade implications of the measure

6.2 This primary legislation is not expected to directly impact international trade and investment.

6.2 Public Sector Equality Duty

6.4 A Public Sector Equality Duty (PSED) assessment has been completed for this primary legislation. The PSED gives due regard to meeting the three aims under Section 149 of The Equality Act 2010 including eliminating unlawful discrimination, the advancement of equality of opportunity among those with protected characteristics and fostering good relations between people with protected characteristics.

6.5 The primary legislation is not expected to have any impact by itself on the protected characteristic groups (PCGs). There are no disproportionate impacts currently identified for any of the PSED groups which include: Age, Marriage/Civil Partnership, Religion or Belief, Sex, Gender Reassignment or Sexual Orientation PCGs, Disability, Race and Pregnant/Maternity PCGs.

6.6 This assessment will be kept under review. A separate PSED assessment will need to be conducted, reviewed, and monitored for impacts associated with any secondary legislation which may follow.

6.7 Impact on small and micro businesses

6.8 This primary legislation is expected to have no impact by itself, as the number of licences applied for and awarded is assumed to be the same in the counterfactual and preferred policy option. Therefore, its estimated impact on small and micro businesses is zero. Secondary legislation may create administrative and familiarisation costs for businesses for example, costs incurred by project developers. However, we anticipate that developers of hydrogen pipelines will be relatively larger businesses, rather than smaller ones.

6.9 Regional impacts

6.10 There will be no regional impacts relative to the counterfactual, as the number of licences and their geographical location, applied for and awarded is assumed to be the same.

6.11 Projects seeking to construct and operate gas transport infrastructure (i.e., pipelines) can play a vital role in levelling up the economy throughout the UK. HTBM support (via the revenue support contracts) is intended to be UK-wide. However, the RAB-style price control will only be GB-wide. The HTBM has the potential to particularly benefit industrial regions which are to a large extent located in Scotland, South Wales, and the North of England.

6.12 There are industrial clusters in England, Scotland and Wales where significant investment into gas transportation infrastructure will help to secure existing jobs whilst creating new jobs. The proposed industrial clusters and the known project pipeline is likely to see major projects delivered across the UK in England, Scotland, and Wales, with potential for plans for Northern Ireland in the future.

6.13 The Northern Ireland Authority for Utility Regulation (UREGNI) regulates the Northern Ireland (NI) gas market. NI will be able to receive the revenue support (i.e. external subsidy mechanism) aspect of the HTBM, but utilising the current gas transporter licencing regime means the RAB-style price

control will only be GB-wide, as the NI licencing regime does not include hydrogen. NI has a different licencing regime for the transportation of gas compared to Great Britain. The NI regime is established through the Gas (NI) Order and the Energy (NI) Order, which does not apply to hydrogen. This is unlike the licencing regime in Great Britain established by the Gas Act.

6.14 Altering the licencing regime in NI to allow UREGNI to issue RABs for hydrogen transportation would require amendment to Northern Irish primary legislation. Given energy policy is largely devolved in NI, it would not be appropriate to alter the licencing regime in this way without a functioning Northern Ireland Executive. The Northern Ireland Executive, once restored, will determine the most appropriate way to enable the issuing of licences to transporters of hydrogen in NI, if this is deemed necessary.

6.15 We will continue to work with the Northern Ireland Civil Service to understand more about how HMG can support Northern Ireland's hydrogen ambitions.

7 Monitoring and Evaluation

7.1 A monitoring and evaluation (M&E) plan for the whole HTBM (of which this IA covers one part) will be developed in conjunction with the Net Zero Hydrogen Fund and Carbon Capture and Storage Infrastructure Fund capital co-funding scheme.

7.2 The scope of the M&E plan will include a process, impact, value for money and ultimately a system evaluation. This is to capture all aspects of policy impacts alongside dependent policy interactions.

7.3 Through a process evaluation we will aim to understand the effects of SoS powers to issue a gas transporter licence and/or modify conditions in a gas transporter licence.

7.4 Through an impact evaluation for the whole HTBM we will seek to understand aspects of business model design, to allow for future improvements.