

# Topic on a Page for GCSE AQA Paper 3 Pre-release 2025:

Morecambe Bay and Duddon Estuary Tidal Gateway Project

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# **Teacher's Introduction**

This resource has been created as a revision tool for students studying GCSE AQA (8035) Geography. The resource covers all of the content for the Paper 3 Pre-release Resource Pack 2025, including core content to support all students as they get to grips with the issue, and extension content to stretch and challenge the most able students.

The idea behind Topic on a Page is not to cover every single word of the course, but rather to summarise a topic into a manageable single sheet of A3 paper, allowing students to see the bigger picture of the entire issue evaluation. Thus, the resource is an ideal aid for helping students to think synoptically. Staff in my department and in other local schools have tested the content with the full range of abilities and the feedback has been very positive.

The A3 summary sheet contains all the major vocabulary, themes and concepts for the Paper 3 topic on the proposed tidal gateway across Morecambe Bay and Duddon Estuary, drawing on the AQA pre-release booklet. The advantage of using this resource is in the summarising of facts and figures, the use of diagrams and cartoons, plus key points on the issue at the heart of this year's exam, so that students can use it as a key element in their revision for the exam.

There are two main topic-on-a-page variants:

- 1) **Core** version summarises all of the content in the 2025 pre-release booklet, perfect for all students, and with an additional border of white space to make notes and add any research and personal views on the issue.
- 2) **Stretch and challenge** version adds additional research taken from the leading sources upon which the prerelease is based, to add insight and depth, and to extend knowledge for the most able students.

Scaffold versions of both sheets are available as a fill-the-blanks activity to aid recall of the key information. Activities are included (pages 2–4) to guide students who are undertaking the stretch and challenge scaffold version, as some of this information is not readily available within the pre-release booklet.

For the ultimate flexibility, the content for each of the three pre-release figures is also provided on independent sheets along with scaffold versions, so that they can be tackled individually, and revision of the issue can be built up in parts. This provides plenty of extra space on the sheets for student notes.

My students find these mind maps invaluable, and I hope yours do too! We have used them in the following ways:

- As a revision tool and in the run-up to exams.
- Students can work with them independently.
- They can be colour-coded to separate the different sections of the pre-release booklet. This activity alone is enough to get students examining the topic more closely.
- For more able students, the mind maps can be cut up and expanded, adding additional case-study information or visuals. This allows students to personalise and structure their revision in their own way.
- In the lead-up to exams, I always recommend to students that they display the mind maps somewhere very visible where they will see them regularly. Many students like to stick them on their bedroom walls at home. This allows them to subconsciously revise them as they go about their daily routine.
- The simplicity of photocopying means multiple copies can be given to students and there is no real problem if they lose them. I have found this particularly useful with my lower-ability sets who all have several copies of each mind map, usually including one buried at the bottom of their school bag!

A Logie, April 2025



A web page containing all the links listed in this resource is conveniently provided on ZigZag Education's website at **zzed.uk/12649** 

You may find this helpful for accessing the websites rather than typing in each URL.

This resource is intended to supplement your teaching only.

It is the teacher's responsibility to decide how to use this resource to assist themselves and their students appropriately. You may simply wish to read this material to better inform yourself and to help you prepare your lessons and give you ideas for your teaching. You may also consider whether it is appropriate to distribute some of the material for reference and to use some of the tasks for classwork and homework. You may also consider whether it is appropriate to make the whole resource available to be worked through by your students more independently.

As with all pre-release material it is the teacher's responsibility to decide in what way to assist their students. It's the teacher's responsibility to decide how this resource in particular can be used to fit into that assistance.

The resources here are provided as one experienced teacher's interpretation of the **pre-release material**. The author, although an experienced teacher, does not have any special knowledge of what to expect on any particular exam.

# Stretch and Challenge Tas

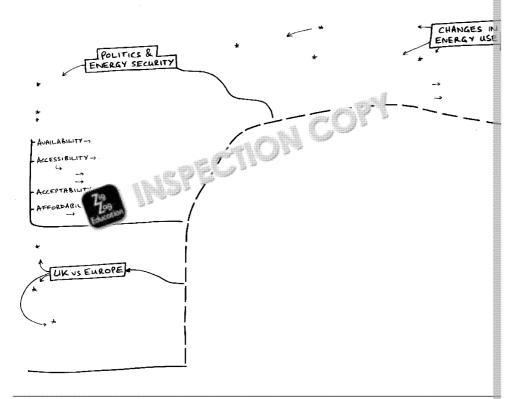
AQA say there is no requirement to do any further research beyond what is in the never be asked a specific question about something beyond the content in the property are Geographers and we read around our subject to gain a better understanding of understand some of the different viewpoints shown. It is always worth looking at most of these stretch and challenge tasks encourage this style of thinking. This we content and make you better able to answer questions on it.

# Figure 1 - Energy in the UK

- 1) Think about all the things you have used energy for singly goo up this morning. Hint think about importing your food, where your of this growmade, how much heat was not your house.
- 2) Do some research into the U' nanking energy mix you may have done this already 'The Challenge of Person of Magement'. Use the following website to help you:
  - Zz Zz 12t 1 -, gz-2 Conside said about:
  - a) Changing consumption
  - b) Changes in energy sources (this includes for transport and industry)
  - c) Changes in how we are making electricity
  - d) Moves towards sustainability
- 3) Look at this document on the government website, in particular the headline statistics of Is there anything that surprises you?
  - zzed.uk/12649-Fig1-3
- 4) Consider the 4 'A's of energy security. Draw a spider diagram like the one on page 2 of the 4 'A's of energy security to the Morecambe Bay tidal gateway proposal – what can y
  - a) Availability
  - b) Accessibility
  - c) Acceptability
  - d) Affordability
- 5) The map on page 3 of the pre-release booklet shows which countries produce the lar from wind and solar, but this isn't the whole picture. Look at Figure 2 on this website

# zzed.uk/12649-Fig1-5

What other forms of renewables are these countries using? Who is using which type the top countries to find out about.

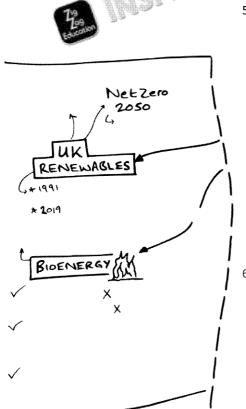


# NSPECTION COPY



# Figure 2 - Renewable Energy and the Proposal

- One of the Labour government's manifesto pledges was to create 'Great British Ener company. Look at their website and see what their focus seems to be:
  - zzed.uk/12649-Fig2-1
- There have been many records set for renewable energy generation in the past few 2) can, and see what progress is being made. You may find the following website useful zzed.uk/12649-Fig2-2
- 3) Bioenergy is listed as the UK's biggest source of renewable energy, but it is controver find some arguments for and against bioenergy:
  - zzed.uk/12649-Fig2-3a
  - zzed.uk/12649-Fig2-3b
- There are eight types of renewable energy shows on by diagram on page 4 of the renewable energy, find one advantage. Then, rank the types best to worst (1 being best, 2008 being worst). Would this ranking order change if home? (NIMBYism: '\ t \ /\ backyard')



BIOMASS -

SOLAR -

HYDRO

[WIND]

WAVE -

HYDROGEN FUEL CEL

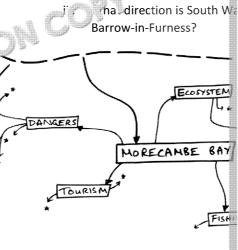
MAP PG5

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At the bottom of page 5 of the pre-reinformation about the significance of Internet, find out some more about headings to help you:

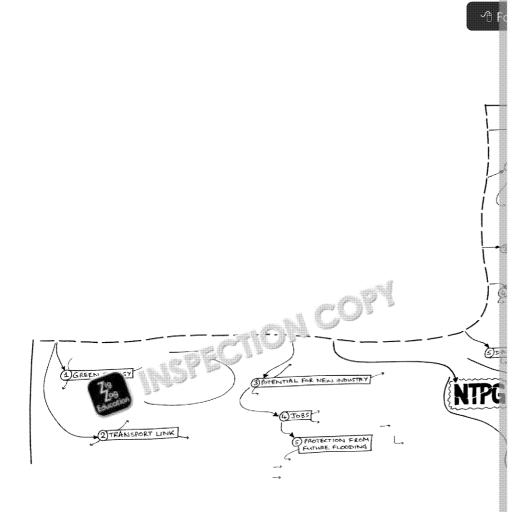
骨 For all links @

- Ecology/Ecosystem What type unique is it? Does this attract to impact might the tidal gateway
- b. Fishing – What type of fishing h made? How many people wor 2004 Morecambe Bay cockle d
- **Tourism** Why do tourists visit visit? What is the target audie tidal gateway on places like the
- Dangers How dangerous is the Could the tidal gateway make it Consider the map on page 5 of the pre be asked about this map? Using the
- What is the likely impact of the
- Will the impacts be positive or shown?
- You may get more factual quest
  - What is the length of the tidal gateway?
  - Which nature reserves ar ii. mc likely to be affected
    - Barrow-in-Furness?



# Figure 3 - Different Perspectives

- Tidal power is not a new concept. Find out about the Rance tidal power station in Ni benefits of this project, which has been operational since the 1960s? Use the follow zzed.uk/12649-Fig3-1
  - The Morecambe Bay tidal project hasn't seen any major developments recently, yet What might be different about this one on the River Severn?
    - zzed.uk/12649-Fig3-2
- 3) Wind power produced 30% of the UK's electricity in 2024. Look at some of the figure zzed.uk/12649-Fig3-3
- 4) Barrow-in-Furness would be a major beneficiary of the construction and of the finish economy and population of Barrow-in-Furness.
- 5) The potential environmental damage to the war amor be fully known, but the ecos fragile. What sorts of things can a sold is set of estuary and salt marsh ecosystems sort of damage?
- 6) In 1995 the legislation talks about the impacts of building the bridge. Look at the imwhat compen to areas on the Furness Peninsula:
  - zzed.uk/12649-Fig3-6
- 7) Look through the evidence from a committee meeting to examine this proposal. Are that you haven't yet considered?
  - zzed.uk/12649-Fig3-7



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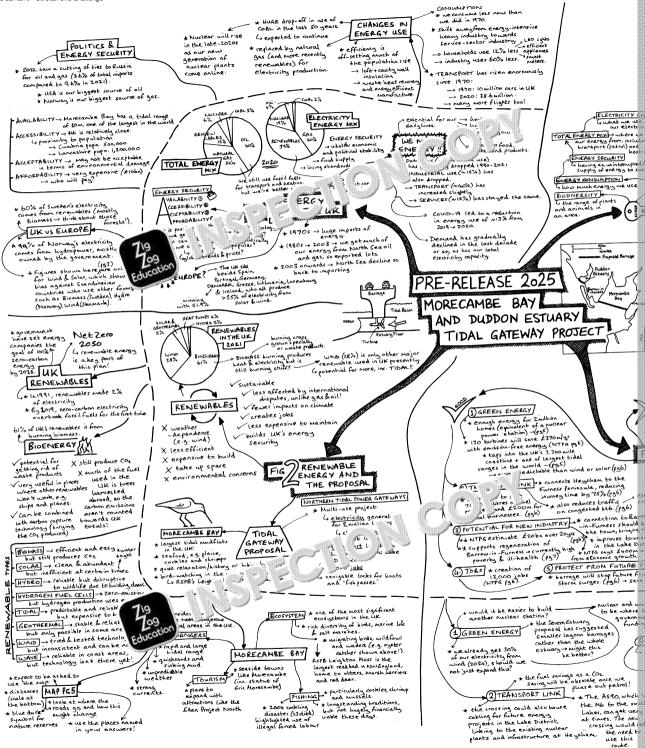


# . COAL 3% NUCLEAR ELECTRICITY ! ELECTRICITY TENERGY MIX daily lives. TOTAL ENERGY MIXTO where we our energy from inclusion transport (petrol) and head ENERGY SECURITY witalfor economi and political stability Dom (C) dropped 1990-2021 INDUSTRIAL USE (NISA) has ENERGY SECURITY - food supply TOTAL ENERGY to having an uninterrupte supply of energy to s - living standards Show much every we use also dropped. - TRANSPORT (N40%) has AVAILABILITY 0 increased slightly SERVICES (NIS%) has stayed the same BIODNERSITY the range of plants CCESSIBILITY & LUKE could-19 led to a reduction in energy use of N13% from 2019 → 2020. CEPTABILITY® FFORDABILITY 1970s -> huge imports of energy 1980s -> 2003 -> we got much of our energy from North Sea oil and gas, so exported lots and gas, so exported lots Demand has gradually declined in the last decade or so, as has our total electricity capacity + 2003 onwards -> North Sea decline so 7 The UK sik + 2003 onward Periode Spain back to o Portugal Germany Desimbles Greece, lithuania, luvenbourg Desimbles Greece, lithuania, luvenbourg Té reland, who all produce \$ 10 reland, who all produce \$ 25% of electicity from back to importing. PRE-RELEASE 2025 1 A A MORECAMBE BAY with 51.4% Tidal Basin HENT PUMPS 4% AND DUDDON ESTUARY ₩. RENEWABLES/ TIDAL GATEWAY PROJECT INTHEUR 720215 wind (28%) is only other major renewable used in UK presently BIOMASS burning produces heat & electricity but is still burning stuff! WIND 28% Gpotential for more, inc. TIDAL! √ sustainable Viess affected by international disputes, unlike gas & oil! RENEWABLES V fewer impacts on climate 1) GREEN ENERGY V creates jobs \* enough energy for Zinkhon homes (epimalent of a nuclear homes (epimalent of a nuclear power & kathon) - (755) \* 130 turbines will save £370m/gr with emission-free energy (NTFA ps) with emission-free energy (NTFA ps) X weather -dependence (e.g. wind) Viess expensive to maintain builds UK's energy security X less efficient + taps into the UK's 7,700 mile \* tags into the like 1, 100 mile coastline + one of largest tidal ranges in the world - (195) A 27 redictable than wind or solar (195) X expensive to build X take up space 2) RENEWABLE X environmental concerns FITE I NK ++ connects Heysham to the ENERGY AND The street of th THE PROPOSAL NORTHERN TIDAL POWER GATEWAYS \* Multi-use project 3 POTENTIAL FOR NEW INDUSTRY - CONNECTION to Ra 6 electricity general for 2 million 1 s MORE CAMBE BAY TIDAL GATEWAY \* largest tidal mundflats in the UK. net 1 4 PROPOSAL + seafood, eg. plaice, cockles and shripps \* quiet relaxation/history or hik (1) Jobs + creation of SPROTECT FROM FUTURE <u>عطوز</u> کامو + bird-watching in the La RSPB's Leigh \* barrage will stop future for storm surges (pgb) - sav (NTPG 196). navigable locks for boats and "fish passes."

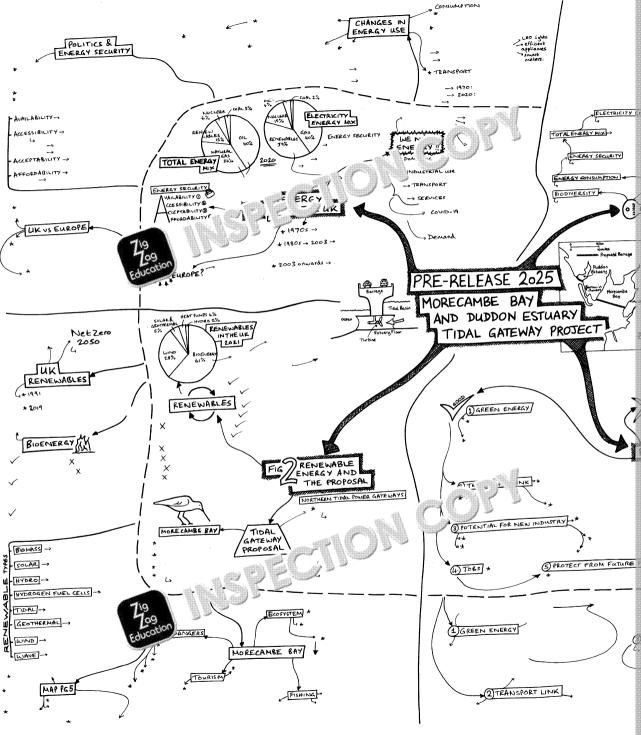


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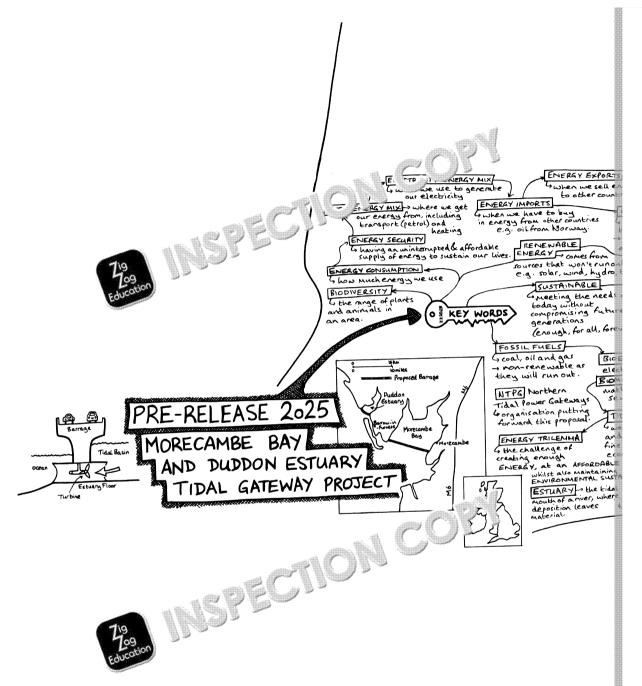








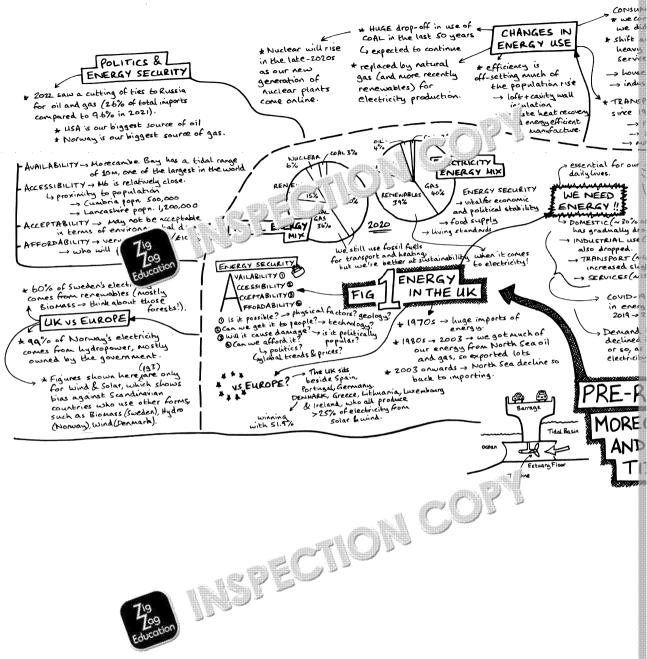




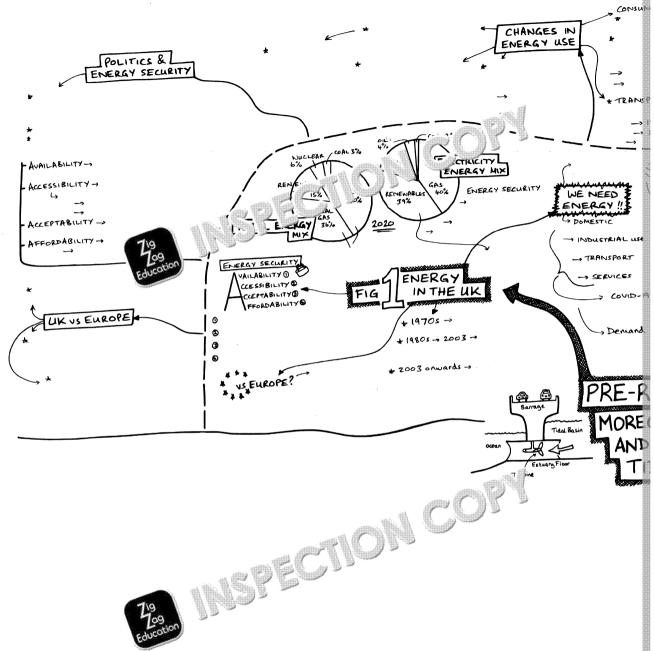


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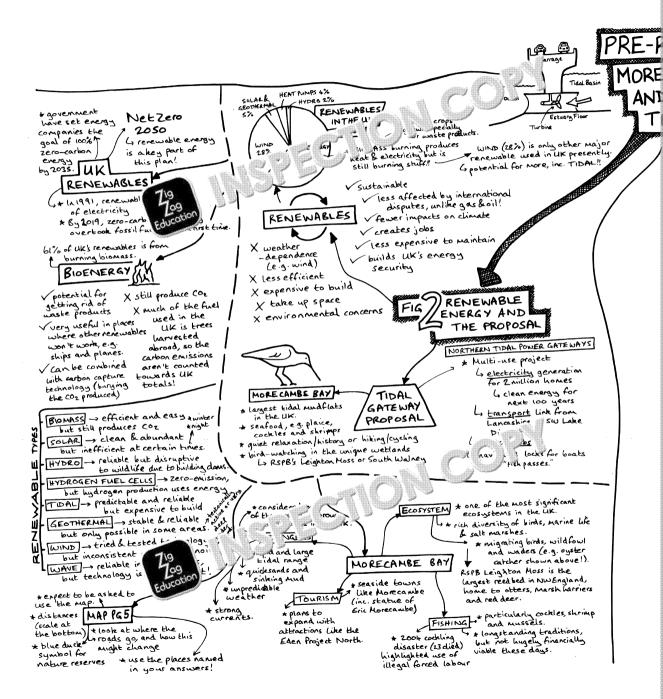




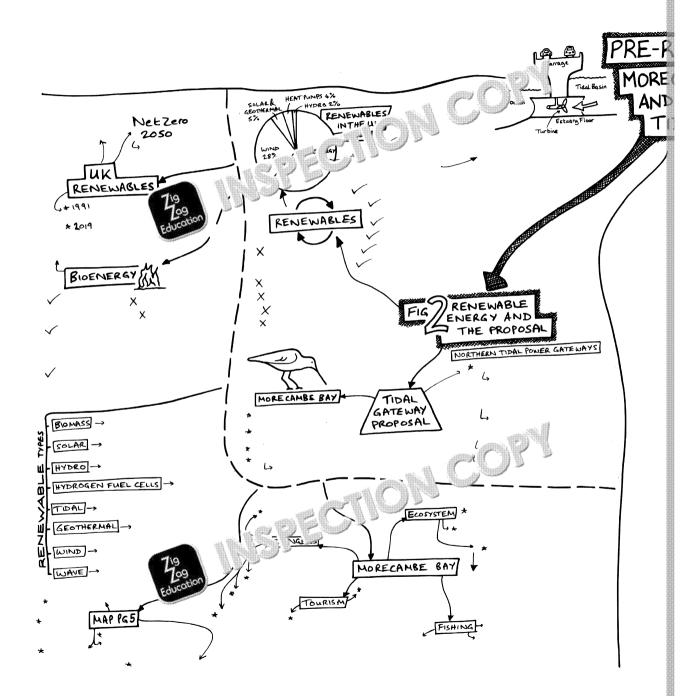




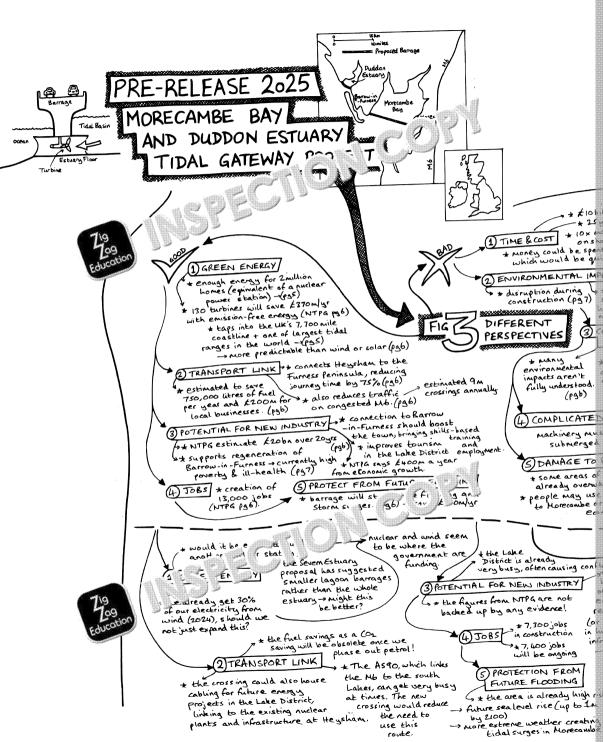














# PRE-RELEASE 2025 MORECAMBE BAY AND DUDDON ESTUARY TIDAL GATEWAY 1) TIME & COST 1) GREEN ENERGY 2 ENVIRONMENTAL IM DIFFERENT PERSPECTIVES TRANSPORT LINK 4 COMPLICATE 3 POTENTIAL FOR NEW INDUSTRY S) DAMAGE TO 3) PROTECT FROM FUTU (4) JOBS \* (3) POTENTIAL FOR NEW INDUSTRY (4) JOBS 2) TRANSPORT LINK (5) PROTECTION FROM FUTURE FLOODING

