

Severn Tidal Power

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British Hydropower Association Conference

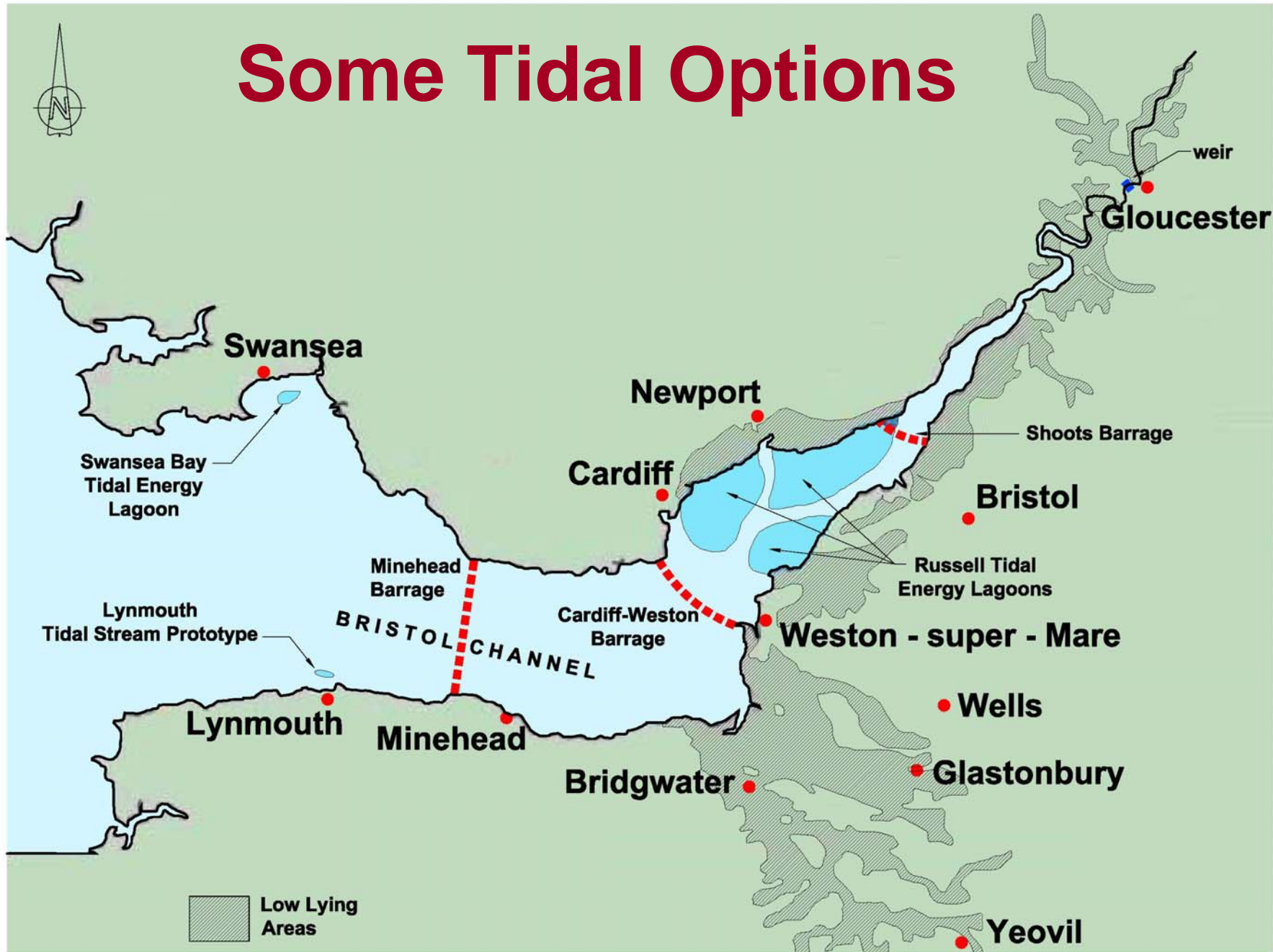
18 September 2008

Severn Tidal Power Group: Sir Robert McAlpine
Taylor Woodrow
Balfour Beatty
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Severn tidal power can provide 5% of UK electricity consumption

- Predictable, clean, renewable energy – no imported fuel
- Enough for 3 million people, their homes, offices and factories
- Additional benefits of permanent new jobs, flood protection and transport links

Some Tidal Options



We must have renewable energy

- Government committed to 15% energy from renewables by 2020
- This means 30% to 40% electricity from renewables
- Nuclear is clean and necessary, but is not classed as renewable - it can help with the other 70% to 60% of electricity

BERR have 10 options for the Severn

BERR's 10 Tidal Options

Barrages

- Minehead to Aberthaw
- Cardiff – Weston super Mare
- Hinkley to Lavernock Point
- Shoots (English Stones)
- Beachley
- Severn Lake

Tidal Fence

Lagoon on Welsh Grounds

Tidal Lagoons off-shore

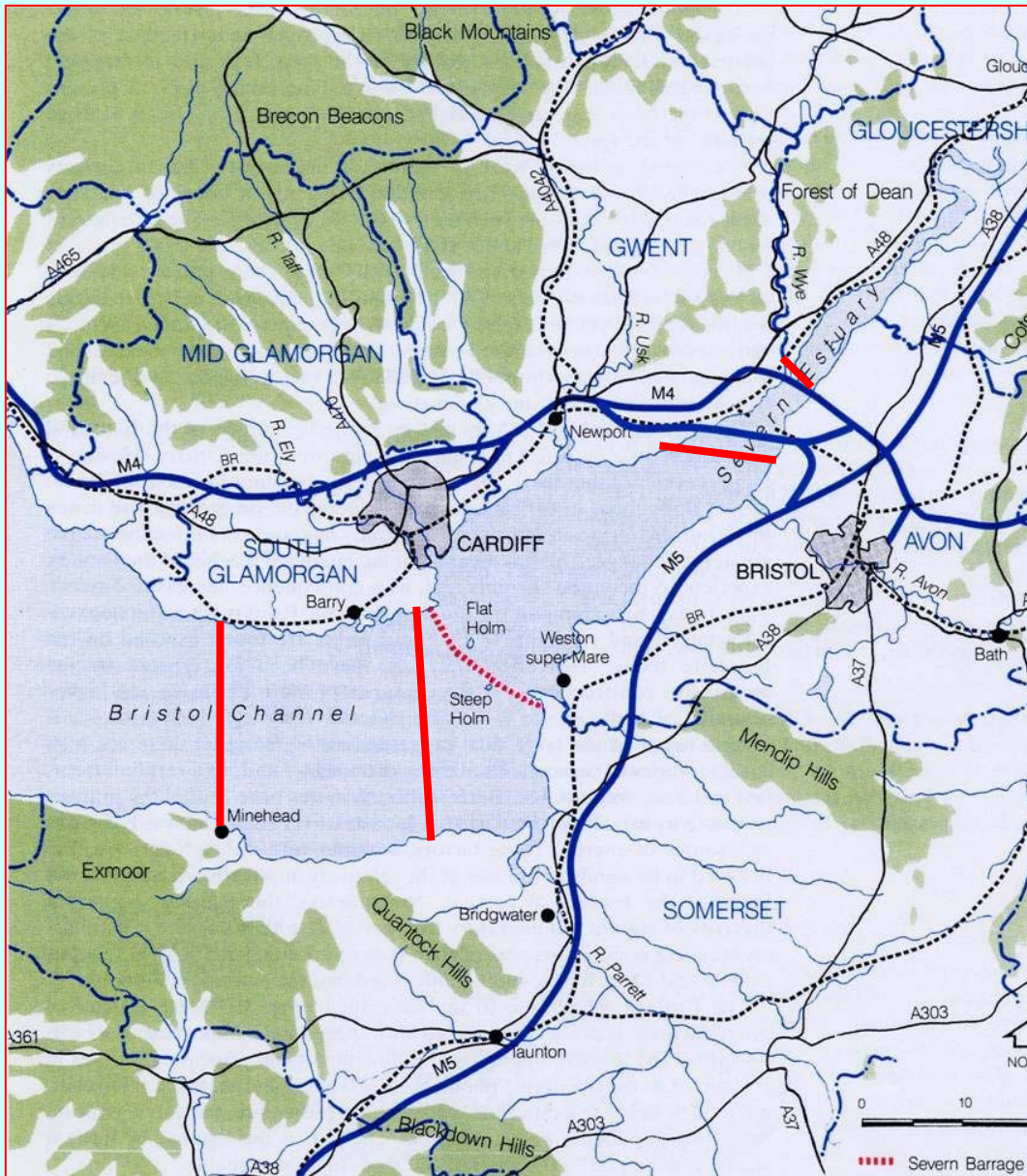
Tidal Reef

Shortlisting by the end of 2008

Finding the Best Option

- The public need a transparent and thorough study to identify the best option
- Private sector investors need confidence in the business case
- All options must be compared on a common basis

**We know Cardiff-Weston is a good project:
*Is there a better one?***

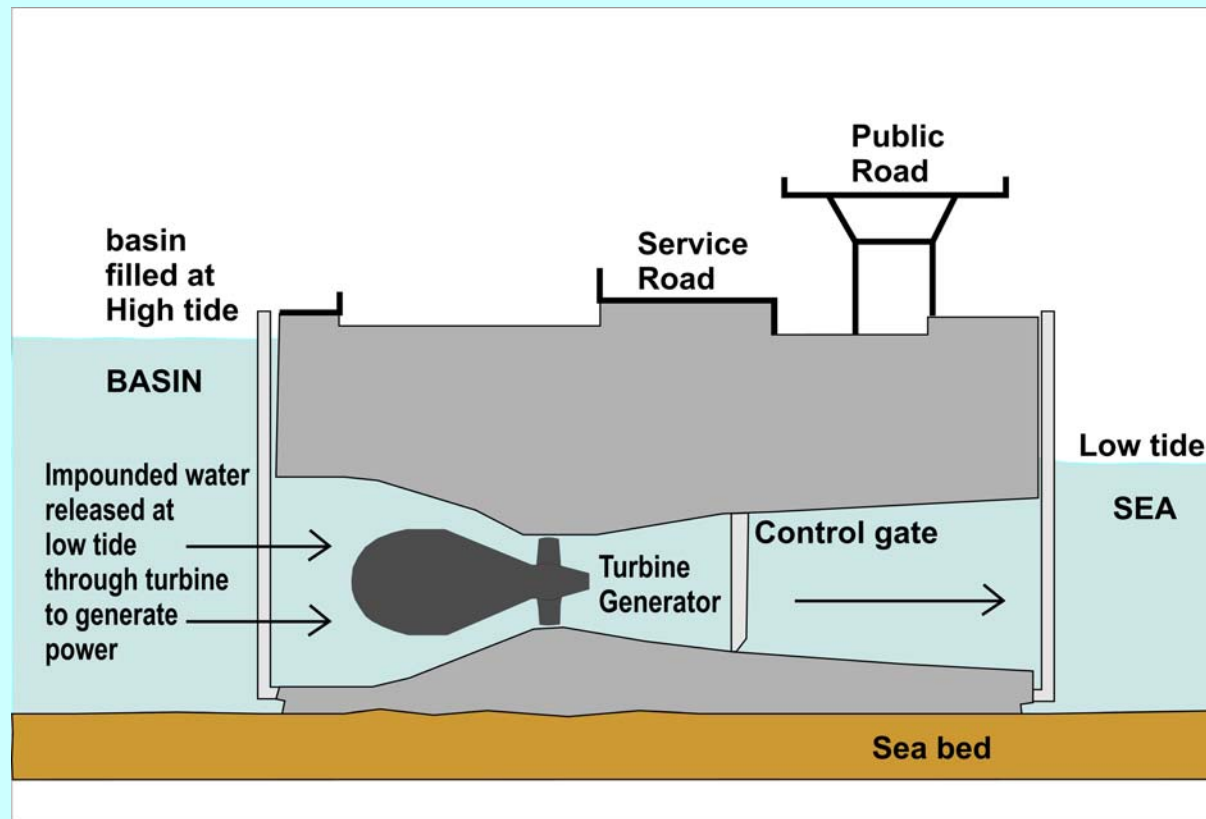


The Cardiff – Weston barrage is the Base Case

- 16 km length
- 216 No. 9m diameter bulb turbines
- Sluice area 35,000m²
- Road and rail links
- Locks for the largest ships at Bristol Port

Tidal Range Power

- The Barrage impounds the high tide; later water is released through turbines to generate electricity
- Proven Technology: the Rance barrage in France has generated tidal power reliably for 40 years



Many issues must be considered

- Environmental impacts, mitigation & legislation
- Transport: ships, road and rail
- Flood protection, sea level rise
- Regional impacts, job creation
- Economics Finance and Ownership
- Construction cost and programme
- Non-energy benefits
- Stakeholder concerns