



Newsletter

Sixth Edition – Winter 2021

We are delighted to share with you our sixth HUGE Project Newsletter. We continue our final year of the project and are working hard to deliver on the project tools before wrapping up the project in early 2022. We managed our first in person project partner meeting in the Faroe Islands since December 2019 and are looking forward to meeting again in person early in the new year.

We continue to update our Newsflash series every month which brings you highlights of hydrogen stories from across Europe. We have also been running our successful seminar series which invites expert speakers to discuss the role of green hydrogen across different sectors and countries. We hope you continue to enjoy our project outputs and we look forward to sharing our finished tools over the next number of months. Thank you for your continued support.



**Easing Constraints
and System Redundancy**



Creating Industry



Low Carbon Travel



**Creating
Resilient Communities**

In this edition you will find stories highlighting our e-learning courses, a recap of our hydrogen marine fleet webinar, an introduction to our new Cashflow Analysis tool, and an update on our recent project meeting.

As always please don't hesitate to get in touch with us via our website or social media channels, all of which can be found on this page.

- Website – www.Huge-Project.eu
- Twitter – [@HUGE_Project_EU](https://twitter.com/HUGE_Project_EU)
- Facebook - [@HugeProjectEU](https://www.facebook.com/HugeProjectEU)
- YouTube - The HUGE Project
- LinkedIn - HUGE Project EU
- Email - info@huge-project.eu





NPA Annual Event

The HUGE project is funded by the Northern Periphery and Arctic (NPA) Programme which hosted their first hybrid NPA Annual Event, which took place on 27th October 2021, both online and in Sligo, Ireland. Unfortunately HUGE projects partners were undertaking their own, twice postponed, project meeting and couldn't be there in person in Ireland.

However the HUGE project hosted a breakout session virtually on Climate Change and Resource Sufficiency.

Lucia Brhlíková, Project Officer, for the NPA Programme introduced the session with an overview of project achievements across the programme period.

Magnus Davidson from the HUGE Project's lead partner, the Environmental Research Institute, North Highland College, University of the Highlands and Islands, then introduce the HUGE Project. His talk was titled Resource Sufficiency: A HUGE possibility for the NPA Area and discussed the role of the HUGE project in helping to achieve these aims across the region.

Resource Sufficiency:
A HUGE possibility
in the NPA Area

Magnus Davidson
27/10/2021



cH₂anging perception in renewable energy utilisation



Latest Webinar



Our online seminars aim to transfer knowledge of hydrogen technologies to a wider audience, including industry stakeholders, end-users and government agencies, across the Northern Periphery and Arctic region of Europe. Our latest webinar took place in October entitled:

Hydrogen, towards a zero-emission fleet

The event was due to be a hybrid in person seminar and webinar hosted in the Faroe Islands. Unfortunately due to increasing Covid-19 cases in the days before we had to take the decision to move fully online.

The webinar looked at the role of hydrogen in tackling emissions from the marine sector, particularly from the fishing fleet. Speakers included a wide range of organisations including the HUGE Project, the Faroese Environment Agency, and local Faroese businesses involved in the marine sector.

A recording of this webinar, as well as all of our other webinars, can be found on our website under the seminars and workshops tab.





TEA Tool: Cashflow Analytics Tool

Action Renewables is leading the development of the Techno-Economic Assessment tool for the HUGE Project. The TEA tool is made up of several parts that all aim to come together to help to carry out an analysis of a potential hydrogen project and inform whether it is likely to be viable.

A cashflow analytics tool has also been developed which allows a user to identify the costs of a range of inputs required to develop a project – the purchase cost of land, equipment, staff costs, and more– and input these into a piece of modelling software. Once input this tool will assess the level of potential financial return on a year-by-year basis (for up to 20 years) and identify at what stage the project will have paid back the initial investment.

The tool is found on our website under the H2 Solutions Tab and full instructions are included below the tool under the heading: *How to use the HUGE Project Cashflow Analytics Tool?*

The instructions give detailed instructions on each of the tools inputs, what is required, and where the information can be found. It also suggests where estimates may be used.

This tool is designed to give a high-level view of whether it is worth a group or organisation considering proceeding with a hydrogen-producing project or development. The tool will help to identify areas in which costs will be accrued and also make you think of where you may be able to procure income.

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HUGE Project Cashflow Analytics Tool

Discount rate Discount_rate

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	
Initial Investment	-11,000.00	-100.00	-100.00	-100.00	-1,000.00	-100.00	-100.00	-100.00	-100.00	-100.00	-2,000.00	-100.00	-100.00	-100.00	-100.00	-1,000.00	
Energy Costs	-200.00																
Water Costs	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	
Land Costs	-1,000.00																
Miscellaneous Costs	-100.00	-100.00	-100.00	-100.00	-100.00	-100.00	-100.00	-100.00	-100.00	-100.00	-100.00	-100.00	-100.00	-100.00	-100.00	-100.00	
Cash receipts		1,387.60	1,429.23	1,472.10	1,516.27	1,561.76	1,608.61	1,656.87	1,706.57	1,757.77	1,810.50	1,864.82	1,920.76	1,978.39	2,037.74	2,098.87	
Net cash flow	-12,380.00	1,107.60	1,149.23	1,192.10	336.27	1,281.76	1,328.61	1,376.87	1,426.57	1,477.77	-369.50	1,584.82	1,640.76	1,698.39	1,757.74	918.87	
Discount factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Present value	-12,380.00	1,107.60	1,149.23	1,192.10	336.27	1,281.76	1,328.61	1,376.87	1,426.57	1,477.77	-369.50	1,584.82	1,640.76	1,698.39	1,757.74	918.87	
NPV																15,605.33	
IRR																	8.04%
Capital Return	-12,380.00	1,107.60	1,149.23	1,192.10	336.27	1,281.76	1,328.61	1,376.87	1,426.57	1,477.77	-369.50	1,584.82	1,640.76	1,698.39	1,757.74	918.87	
	-12,380.00	-11,272.40	-10,123.17	-8,931.07	-8,594.80	-7,313.04	-5,984.43	-4,607.57	-3,180.99	-1,703.22	-2,072.72	-487.90	1,152.86	2,851.25	4,608.98	5,527.85	
	0	0	0	0	0	0	0	0	0	0	0	11,297,363,331	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	136	0	0	0	0	
Payback	0_yrs 0_mths	11_yrs 4_mths	0_yrs 0_mths	0_yrs 0_mths	0_yrs 0_mths	0_yrs 0_mths											

Costs to include Staff Costs, Energy Costs, Water Costs and Land Costs





Project Partner Meeting

The HUGE Project Partner Meeting took place in Tórshavn, in the Faroe Islands, during the 26th and 27th of October. This was the first time the project team got to meet in person for almost two years although we still had some people join virtually, showcasing the benefits of the hybrid model. The project was kindly hosted by the University of the Faroe Islands and Sigurð í Jákupsstovu.

The project was updated by work package leads on all aspects of project work and we look forward to soon launching our Hydrogen Hotspot Map as part of the TEA Tool. We also had updates on the HUB Model and would like to direct readers to two outputs, Stakeholder Value Analysis, and Ecosystem Map, both found under the deliverables tab on our website. The TEA and HUB case studies were showcased and progress continues on these innovative hydrogen solutions. These case studies range from synthetic fuels, hydrogen trucks, hydrogen boilers for schools, hydrogen ferries for tourists, and busses. We learnt more about hydrogen vessels in the Faroes and had the chance to visit construction in the nearby boat yard.



And Finally...

All of the team at the HUGE Project would like to wish you all a very happy festive season and hope you enjoy a well deserved break. We look forward to speaking again soon in 2022.



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