Risk free pipeline development for the hydrogen industry

Appendix

Apr 2022

Reliance Energy's Site Development Services

Core services

- Site Finding
- Site Assessment / Qualification
- Securing land rights
- Securing network connections
- Securing planning & consents
- Due Diligence Management

Enhanced services

- Landowner Relationship Management
- Key Supplier and Specialist Consultant Management
- Commercial Modelling
- Portfolio Management & Reporting

With Reliance Energy's experience of end to end site development, sites can enter the development process at any stage, whether originated by Reliance Energy or bought from a third party:

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Site development for energy projects

- We recognise that owning and operating an energy asset is complex. It needs to be profitable, responsive to market changes, and built to the highest specifications.
- Our job as site development specialists is to ensure that your sites meet your ongoing needs, providing you with the right connections and consents from day one, with enough flexibility to ensure that your project is successful for its entire operational lifetime.
- Whether you are looking to outsource site development, or simply need an extension of your existing team to get the job done, our team will work closely with you to understand your needs and priorities from the outset.

Our services can begin at any stage:

- **New site development** that begins with a parcel of land, for which Reliance Energy secures the necessary consents and connections to construct a project ("Ready to Build");
- **Project recovery**, with Reliance Energy taking a partially consented development (including sites with lapsed consents) through to Ready to Build; and
- **Site re-development,** offering energy companies a site or portfolio assessment service to identify and implement optimization strategies to respond to the changing demands of the energy market.

Site development for hydrogen projects

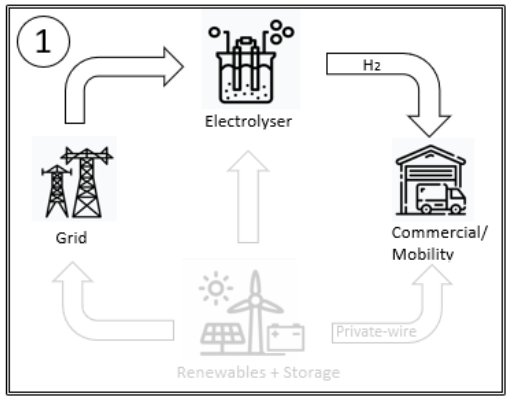
The challenge is building an investible business case around a technology not yet proven

- At Reliance Energy, we have industry knowledge that helps to understand how emerging technologies make money, and can therefore make you money
- Our proven track record in site finding and assessment means that we can find potential sites for you no matter what your energy needs are
- Our experience with emerging technologies, and our track record of making them profitable, means that we understand funding opportunities and constraints, and can work with your project across all stages of investment
- Our expertise in the development sector:
  - Helps bolster and streamline your pipeline development
  - Makes us a good outsourcing provider
  - Allows us to develop your site using emerging technology

Our business model allows us to work with some amount of risk, which is an essential requirement for engaging in emerging technologies

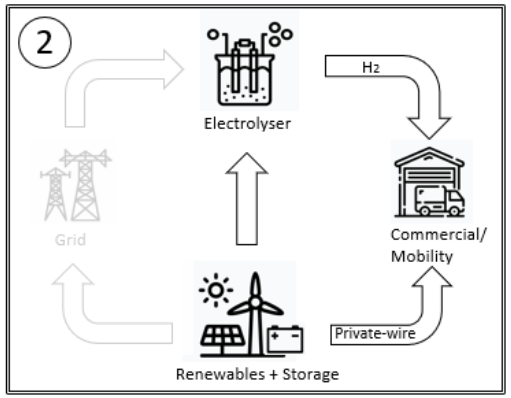
Electrolyser Configurations

being explored by Reliance Energy



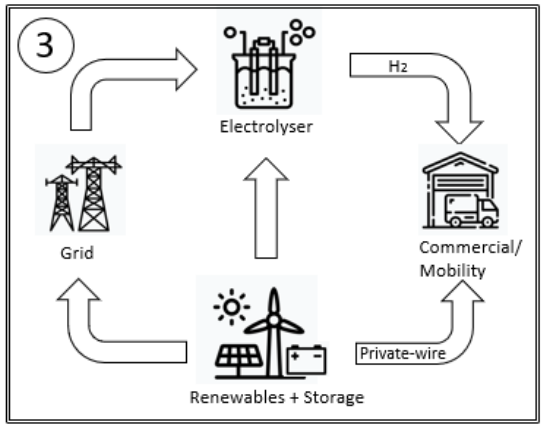
GRID CONNECTED ELECTROLYSER

- ❑ Installed near the H_2 off-taker
- ❑ Electrolyser Running in non-peak hours with H2 storage facility.



ISOLATED ELECTROLYSER

- ❑ Co-located Electrolyser
- ❑ No restrictions with the grid constraints/capacity issues and avoiding high cost of connection.
- ❑ Electrolyser installed near the H_2 off-taker.
- ❑ Private wire to Commercial establishment for cheaper electricity tariffs.
- ❑ Size of the Electrolyser relative to the renewable capacity and private wire demand is of key consideration.

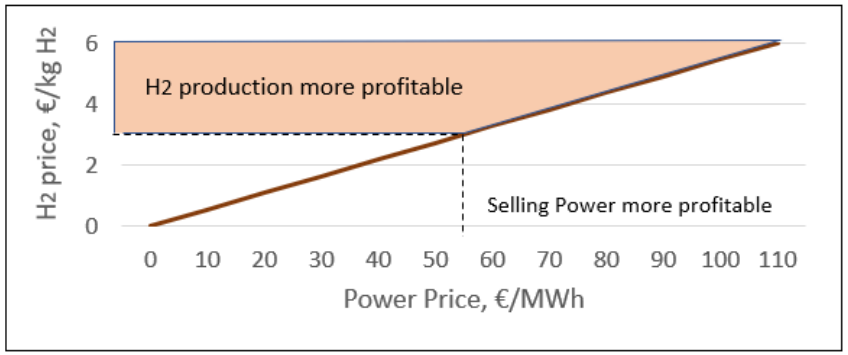


DUAL CONFIGURATION ELECTROLYZER

- ❑ Grid and Private wire connected Electrolyser
- ❑ Electrolyser Installed near the H_2 off-taker.
- ❑ Periods of excess renewables utilised to produce H_2.
- ❑ Three sources of revenue. Grid, H_2 and possible Private-wire.
- ❑ Optimisation of Revenue sources possible.

Optimisation of Revenue from two sources depends on:

- ➢ Wholesale Power prices
- ➢ Hydrogen price



According to Aurora Energy Research: At a power price of €55/MWh, a hydrogen offtake price of at least €3/kg would be required to incentivise hydrogen production over power generation

Predicted timeline: Renewable hydrogen

2022-2025

Peer-to-peer Projects

- Small scale electrolytic production
- Replace fossil H_2 in industry
- Trials with heating and electricity generation
- Trails with blending in existing gas networks
- Buses
- HGV fleet
- Rail

2026-2030

Clustered H_2 Projects

- Increase in number of small scale H_2 productions.
- Increase in storage and transport
- Blending H2 in existing pipelines
- H2 in heating and power generation
- Use of excess renewables to generate hydrogen, hence reducing prices of hydrogen

2030-2040

H_2 Grid

- Large scale productions in parts of UK
- Integrated hydrogen grid for electricity and heating
- Shipping and aviation on hydrogen becoming reality.
- Natural gas network being replaced with hydrogen

Prospective site: Northeast Industrial Estate

Case study:

- Industrial estate close to prospective point of demand.
- REL ready to explore the potential further with a client.
- Site very close to a large bus depot and Royal mail Delivery Office(future potential off-takers)

Grid (based on Site)	
Size: Export	20
Size: Import	20
DNO:	15 NPG (North East)
Connection Voltage:	66kV
Status:	Applied for Grid connection

Land			
Land designations	Primarily undesignated. Impact: Relatively shaded from road by trees etc.		
Built up area	Nearby	**Green belt**	Nearby
National Park	No	**Ecological**	No
AONB	No	**Heritage**	No
Flood zone	FloodZone 1 (Low risk)	**Agricultural grade**	Grade 3

Meet the Reliance Energy team

Founded in 2016, Reliance Energy has a track record of successfully developing energy projects and overseeing funder due diligence processes. Its established and well-reputed team has amassed the knowledge and experience needed to move quickly and efficiently with a complex and ever-changing energy market.

Led by Manging Director **Neil Drake**, who has built and developed the team to deliver tangible results and establish excellent working relationships.

Reliance Energy's non-exec director, **Andris Bankovskis**, supports Neil providing in-depth understanding and experience in large and small commercial enterprises, industry bodies and government in relation to energy market policies and regulation.

Reliance Energy's Directors

Neil Drake, Managing Director

Neil was appointed as the team's managing director in 2016, bringing with him a proven track record of delivering high quality results through his leadership. He transformed a niche start-up concept into an extremely adept business creating value for its customers. His vision is to harness the team's extensive skills and experience to provide outsourced services to the complex and highly regulated energy industry. An experienced executive, well versed in the practicalities of the directorial role, including business administration and investor relations.

Prior to joining the team, Neil spent a number of years at EDF Energy where he held positions forming commercial strategies for both corporate and B2B functions. Between 2009 and 2011 Neil oversaw the development and delivery of EDF's strategy for the commercialisation of nuclear power; a project that culminated in the launch of Blue, the company's most successful product in both B2B and residential markets. More recently, Neil held strategy roles in EDF's Energy Services, PPA and Supply functions; creating commercial propositions for the UK's largest business consumers and independent generators. He also acted as a National level spokesperson for EDF, led influencing initiatives with Ofgem, Defra and DECC and represented EDF Group on the international stage as part of the World Resources Institute's working group on carbon accounting.

Education and qualifications:

- Chartered Institute of Management Accountants – Certificate of Business Accounting
- University of Bristol – MBA, Strategy and Finance
- University of Brighton – BSc, Sport and Exercise Science

Andris Bankovskis, Non-executive Director

Andris provides oversight to Reliance Energy's trading activities and advises the management team on energy policy and strategy. He has over three decades' experience leading teams and developing policy in electricity generation, supply, regulation and energy technology through working in large energy companies, a major UK energy policy association, an economics consulting group and as an independent energy consultant.

Andris' experience includes nuclear reactor physics, optimisation of generator plant performance, procuring the UK's civil uranium, managing private sector nuclear liabilities, M&A investment due diligence, developing new arrangements for the trading of electricity in Scotland, energy and green certificate trading and compliance and project development. His current interests include the evolution of smart, clean energy systems, energy in the built environment and related policy development.

Andris' career spans roles in a variety of senior advisory positions across Government, industry and investment. His most recent positions include serving on the panel for the Chief Scientific Advisor for Wales, allocating research and fellowship funds for all universities in Wales; and the Panel of Technical Experts on Electricity Market Reforms for the Department of Business, Energy and Industrial Strategy, scrutinising Great Britain's electricity security, cost minimisation and environmental impact. Prior to this, he has held numerous senior roles in both renewable energy policy and trading for organisations including British Energy, SQW Consulting and the Association of Electricity Producers.

Education and qualifications

- Open Business School - MBA
- Open University / London College of Law – Qualifying degree in Law
- University of Manchester – BSc (Hons), Physics

Integration with our key suppliers

The team is expertly supported throughout the development process by our key legal and planning consultants, drawing on relationships that have been established over several years:

- Our consultants are integrated within Reliance Energy's working practices, ensuring our processes are streamlined. When working in new areas or with new technologies, we pull in expertise and share knowledge throughout the team to effectively adapt our existing processes to meet the bespoke needs of the project
- An established meeting cycle means that key consultants can quickly be brought up to speed on new sites and clients' requirements, and progress can be efficiently monitored across the full Reliance Energy portfolio as very low marginal cost
- Key documentation such as planning appraisals, planning statements and land agreements have been jointly developed and refined over the years, providing robust, proven templates. These can then be tailored to meet the specific project needs enabling quicker, effective delivery

RENEW LEGAL

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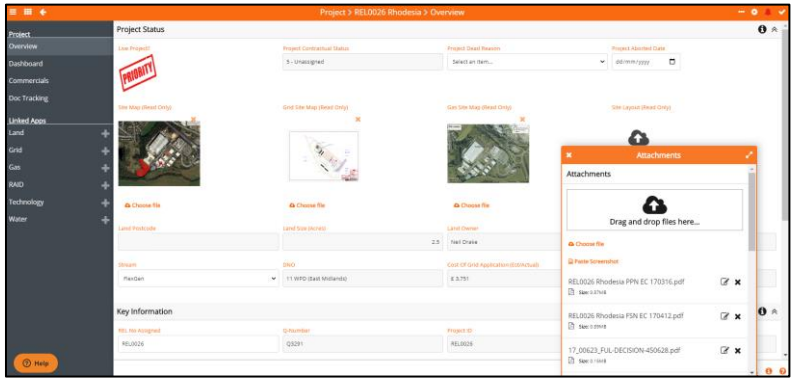
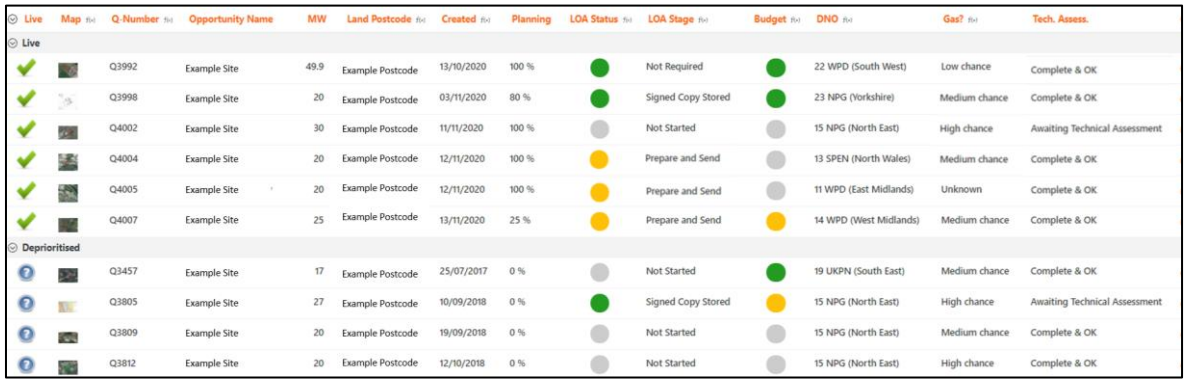
GPP GP PLANNING LTD

Bespoke Portfolio Management - PMP





Live	Map	Q-Number	Opportunity Name	MW	Land Postcode	Created	Planning	LOA Status	LOA Stage	Budget	DNO	Gas?	Tech. Assess.
Live													
✓		Q3992	Example Site	49.9	Example Postcode	13/10/2020	100 %		Not Required		22 WPD (South West)	Low chance	Complete & OK
✓		Q3998	Example Site	20	Example Postcode	03/11/2020	80 %		Signed Copy Stored		23 NPG (Yorkshire)	Medium chance	Complete & OK
✓		Q4002	Example Site	30	Example Postcode	11/11/2020	100 %		Not Started		15 NPG (North East)	High chance	Awaiting Technical Assessment
✓		Q4004	Example Site	20	Example Postcode	12/11/2020	100 %		Prepare and Send		13 SPEN (North Wales)	Medium chance	Complete & OK
✓		Q4005	Example Site	20	Example Postcode	12/11/2020	100 %		Prepare and Send		11 WPD (East Midlands)	Unknown	Complete & OK
✓		Q4007	Example Site	25	Example Postcode	13/11/2020	25 %		Prepare and Send		14 WPD (West Midlands)	Medium chance	Complete & OK
Deprioritised													
?		Q3457	Example Site	17	Example Postcode	25/07/2017	0 %		Not Started		19 UKPN (South East)	Medium chance	Complete & OK
?		Q3805	Example Site	27	Example Postcode	10/09/2018	0 %		Signed Copy Stored		15 NPG (North East)	High chance	Awaiting Technical Assessment
?		Q3809	Example Site	20	Example Postcode	19/09/2018	0 %		Not Started		15 NPG (North East)	Medium chance	Complete & OK
?		Q3812	Example Site	20	Example Postcode	12/10/2018	0 %		Not Started		15 NPG (North East)	High chance	Complete & OK

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REL0123 Project Road

Project Size:	20 MW
Status:	Informally assigned
Land	
Rent:	£ 60,000 / annum
Status:	LOA in place, HOTs in place, AfL Agreed
Planning	
Planning Probability:	80 %
Status:	Planning Application submitted, awaiting Decision
Electricity Grid	
Size: Export / Import	20 MW export 5MW import
Cost:	£ 895,340
incl. non-contestables:	£ 345,689
Connection Voltage:	33kV
Status:	Offer accepted
Offer acceptance date:	14-Jan-2021
Est Connection lead time:	18 months
Gas	
Cost:	Est. £ 863,960 for 57.0 MWt c. 20 MWe+ Reinforcement Costs £ 1,156,000
Status:	Indicative, awaiting full offer
Offer expected:	23-Dec-2020
Current Est. Project £k/MW	£ 149 k /MW

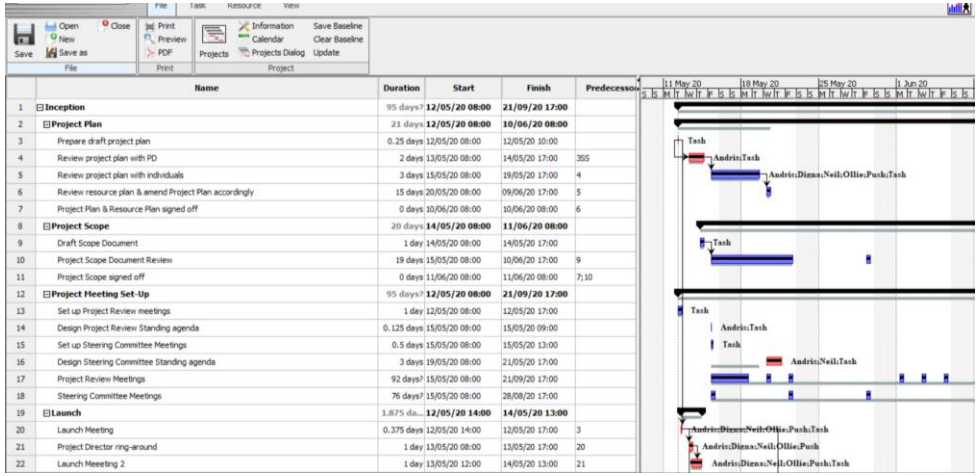
Next Steps
- Follow up planning application
- Accept Electricity Grid offer
- Chase up Gas offer
- Ongoing landowner management

PROTECT: Commercial

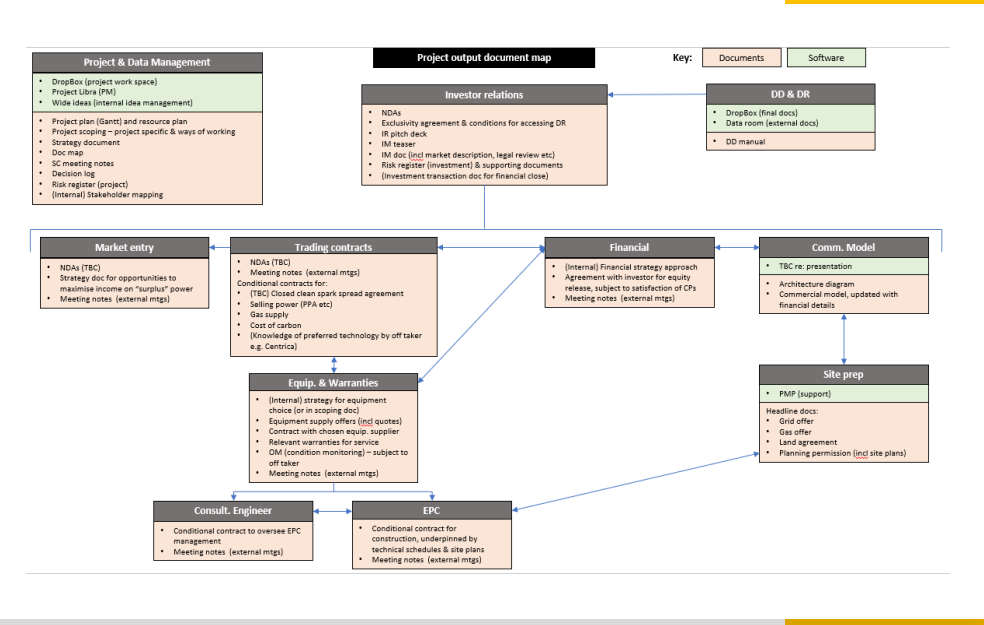
- Site development is complex and multifaceted, with land, grid and planning processes running in parallel
- Reliance Energy has developed a bespoke Project Management Portal (PMP) to enable a modest-sized team to drive large numbers of projects simultaneously, across multiple technologies and clients
- It has been used to track over 1000 sites through every project step, from pre-qualification, throughout development, to completion
- At a project level, PMP provides process progress and action tracking, site summaries for clients and key document storage ready for DD
- At a portfolio level, PMP provides dashboard reporting, KPI monitoring and resource tracking for different clients' development contracts
- With in-house development capability, this system is constantly evolving in line with our processes, to meet the emergent needs of changing technologies, markets and regulations

Project Planning and Management

- In addition to PMP, we use a range of tools to underpin effective project management
- These include:
  - Project plan and resource management, providing a tool for establishing, monitoring and maintaining project delivery within a critical path
  - A comprehensive document mapping solution to underpin project management and due diligence



	Name	Duration	Start	Finish	Predecessors
1	Inception	95 days?	12/05/20 08:00	21/09/20 17:00	
2	Project Plan	21 days	12/05/20 08:00	10/06/20 08:00	
3	Prepare draft project plan	0.25 days	12/05/20 08:00	12/05/20 10:00	
4	Review project plan with PD	2 days	13/05/20 08:00	14/05/20 17:00	3SS
5	Review project plan with individuals	3 days	15/05/20 08:00	19/05/20 17:00	4
6	Review resource plan & amend Project Plan accordingly	15 days	20/05/20 08:00	09/06/20 17:00	5
7	Project Plan & Resource Plan signed off	0 days	10/06/20 08:00	10/06/20 08:00	6
8	Project Scope	20 days	14/05/20 08:00	11/06/20 08:00	
9	Draft Scope Document	1 day	14/05/20 08:00	14/05/20 17:00	
10	Project Scope Document Review	19 days	15/05/20 08:00	10/06/20 17:00	9
11	Project Scope signed off	0 days	11/06/20 08:00	11/06/20 08:00	7;10
12	Project Meeting Set-Up	95 days?	12/05/20 08:00	21/09/20 17:00	
13	Set up Project Review meetings	1 day	12/05/20 08:00	12/05/20 17:00	
14	Design Project Review Standing agenda	0.125 days	15/05/20 08:00	15/05/20 09:00	
15	Set up Steering Committee Meetings	0.5 days	15/05/20 08:00	15/05/20 13:00	
16	Design Steering Committee Standing agenda	3 days	19/05/20 08:00	21/05/20 17:00	
17	Project Review Meetings	92 days?	15/05/20 08:00	21/09/20 17:00	
18	Steering Committee Meetings	76 days?	15/05/20 08:00	28/08/20 17:00	
19	Launch	1.875 da...	12/05/20 14:00	14/05/20 13:00	
20	Launch Meeting	0.375 days	12/05/20 14:00	12/05/20 17:00	3
21	Project Director ring-around	1 day	13/05/20 08:00	13/05/20 17:00	20
22	Launch Meeeting 2	1 day	13/05/20 12:00	14/05/20 13:00	21



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