International Travel Report

Denmark, UK and Italy

Europe Biogas Research Visit

1st July 2025 — 20th July 2025

The Hon. David Davis MP

Member for Southern Metropolitan Region

Electoral Business

Europe Biogas Research Visit (July 1st – July 20th)

Introduction and Reason for Travel

The reason for travel was to attend the World Biogas Expo/Summit and awards 2025 in Birmingham, United Kingdom, and to join the delegation to Denmark hosted by the Trade Council of Denmark and to examine other European case studies for expansion of biogas as a fuel and the regulatory environment that should surround it, particularly in the light of the recent report (May 2025) of the Future Fuels CRC, '*Policy pathways to advance Australia's biomethane sector: learning policy lessons from international jurisdictions'*.

Victoria is undertaking a biogas strategy that began with the release of the '*Victoria's Renewable Gas Consultation Paper'* on the 11th September 2023 and was followed by '*Victoria's Renewable Gas Directions Paper'* which has not yet published its final results.

As member for Southern Metropolitan Region with an interest in ensuring Victoria both meets its objectives and targets for energy transition but does so in a cost effective way. I took up the opportunity to join a delegation to Denmark and attend the World Biogas Expo/Summit and to Italy to see functioning biogas facilities and speak to the head office of a manufacturing group producing energy appliances in Australia. I also met with environmental and energy experts in Italy, the UK and Denmark.

Objectives

My objectives were to better understand world's best practice in the management of biogas, the regulation of biogas and to better understand what role biogas production should play in Victoria's energy future. My

second objective was to better understand environmental and energy issues in Europe by meeting and talking to a series of European experts and apply the learnings to the interests of the Southern Metropolitan Region and Victoria more generally.

Dates and locations of business

3rd – 4th July, Denmark: Aarhus, Skive, Kassø, Tønder, Midtfyn, Copenhagen

8th – 10th July, Birmingham (World Biogas Conference) UK

11th – 12th July, London UK

14th July, Padua, Italy

15th July Venice, Italy

17th July Cremona, Cingia De' Botti, Piacenza, Italy

18th July Rome, Italy

Organisations visited

Green Lab circular industrial park

European Energy

Tonder Biogas

Nature Energy

State of Green

World Biogas Expo/Summit

Raft Energy

Conservative Environment Network

Acting Victorian Agent General

Charles Ogilvie OBE

RenewableUK

SIT Group

Prodeval

Diplomacy Ecco, the Italian Climate Change Think Thank

Venice Biennale

Persons met in relation to the reason for the travel and the assistance or information obtained from such persons: See report below.

References

Many publications and documents were obtained during the travel and are referred to in context in the report below.

Summaries of the study areas pursued in the countries visited

Denmark: Biogas environmental, energy objectives.

Uk: Biogas, environmental, energy objectives and meetings.

Italy: Biogas, environmental and energy objectives.

Summary of the results achieved and any recommendations arising

I made a number of comments and advise throughout the report but make additional comments and conclusions in the conclusion section of the report including recommendations from the sights I saw in Europe.

Accommodation and Transport Itinerary: Attached.

Denmark

Denmark's Circular Economy: Bioenergy (Biogas & Waste to Energy) and Waste Management

I left Melbourne on 1st July arriving in Denmark 2nd July, travelling from the airport by train to Aarhus to join the Australian delegation hosted by the Danish Government.

I was honoured to join the delegation, '*Denmark's Circular Economy: Bioenergy (Biogas & Waste to Energy) and Waste Management',* supported by the Ministry of Foreign Affairs of Denmark '*The Trade Council'*.

A delegation of 11 Australians from across Australia including members from both the public and private energy sectors and representatives of various state's governments and municipalities. The Australian official delegation included:

- Melissa Taylor, Councillor for Toowoomba Regional Council QLD;
- Matthew Butera, Advisor for the Office of the Victorian Minister for Climate Action, Energy Resources and the State Electricity Commission;
- Jenny Merkley and Todd Settle, Executive Director and Principal Policy Officer for the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW);
- Matthew Greskie, Deputy Chair of the Tasmanian Waste and Resources Recovery Board;
- Tracey A Colley, Program Leader at RACE for Business;
- Stephen Summerhayes, Director at the Food Agility CRC and Renewables in Agriculture Centre of Excellence at CSU;
- April Cavanagh, Chair at Toowoomba and Surat Basin Enterprise;
- James Dorney CEO at TOMRA Cleanaway; and
- Myself.

The delegation was coordinated by Dorothy Macanas Dellosa, Senior Advisor, Trade Council of Denmark in Australia.

I stayed with the delegation at the Comwell Aarhus on Wednesday 2nd July.

After joining the delegation, on Thursday 3rd July, the delegation covered large distances across the Jutland Peninsula.

Green Lab Circular Industrial Park

The delegation was very fortunate to be hosted at the Green Lab Circular Industrial Park located in Skive. Green Lab Circular Industrial Park is focused on developing new renewable energy and technologies to support Denmark's green transition. This model seeks to build industrial parks for companies who want to contribute to the renewable transition.

The concept is renewable energy is generated, stored and shared with companies located in the industrial area. There is a direct connection to a wind and solar park just south of Green Lab. Inside the park companies share their surplus energy and resources with each other through the SymbiosisNet. This is a network of energy and data sharing.

As part of the local community, Green Lab seeks to contribute by supporting local growth and employment as part of its commitment to renewable energy.

The unique SymbiosisNet is Green Lab's intelligent network of energy and data that lets companies share their excess resources with each other (Green Lab.dk).

Green Lab has as a slogan '*Let's create a power shift'* which is driven by the Green Lab belief in a team approach through the strength of community. Green Lab works to find new ways to get things done and drive transformation.

In effect, Green Lab seeks to create a green and integrated industrial cluster that maximises the use of renewable energy by reducing waste.

The industrial symbiosis approach seeks to harness '*waste'* energy. The ownership structure, initially public, is now a public private mix.

An important component of Green Lab's success is location next to generation capacity, distribution and near long distance high voltage transmission lines.

The industrial symbiosis model seeks to create a cluster where different firms collaborate to utilise energy efficiency, to reuse waste products including from the park, partner sites on the park include Stiesdal Sky Clean, a site focuses on pyrolysis, biomass, biochar and biooil and Quantafuel a group focused on upgrades to plastic waste into valuable products for which there is a market. Even groups like Vestjyllands Andel a Danish marine protein company are based within the Green Lab zone.

Plants like these are playing a vital part in the Danish '*circular economy'*.

We walked as a group around the Green Lab Industrial Park seeing the significant group of firms dovetailing their activities as part of the industrial symbiosis model. There are obviously lessons for Victoria to learn. The co-location of firms offers not just the opportunity to use/reuse waste products and fuel excess but also to build an intellectual base where firms

collaborate together whilst maintaining their individual corporate structures and their focus on profit making in the usual way.

I thank our hosts on the day including, Mathis Damgaard Morch and other staff members who presented to us so eloquently.

European Energy PtX at Kassø & Tønder Biogas

The delegation was very fortunate to attend the PtX Kassø & Tønder Biogas facilities owned and operated by European Energy and their collaborator Tønder Biogas. The world's largest e-methanol production site that turns renewable energy, water and CO2 into a green fuel. E-methanol is the same product as methanol (methyl alcohol) however it is a green alternative when it is produced using renewable energy captured from a biogas or waste plant.

At Kassø electricity is used to split water into hydrogen and oxygen a fundamental step in many PtX processes (electrolysis). PtX refers to technologies that convert electricity from renewable sources into other forms of energy or chemical products storing energy. The Kassø facility is teamed with a solar park, the largest in the Nordic region 304m/w, operated under a joint venture company Kassø Midco which is co-owned by European Energy, 51% and Mitsui and Co, 49% respectively.

The electricity is used to power an electrolyser (52m/w) producing around 8,000 tonnes of green hydrogen annually which is processed into e-methanol. The advantages of e-methanol are it is a ready storage point and can be used to drive shipping or other vehicles. The Kassø PtX facility will produce more than 40,000 tonnes of e-methanol annually. It is the intention that as part of Denmark's push to decarbonise global shipping, Maersk Shipping will use the methanol created to power three to four of

their first green container ships. The e-methanol ingredients in this circumstance are green hydrogen and biogenic CO2.

Whilst the solar park produces e-methanol it is also located directly next to the trunk high voltage transmission lines running north south in Denmark. Significant electricity is used from this trunk line to support electrolysis and the PtX process. When the grid is offering energy at negative prices.

A key component is the location of this facility and associated plants near major solar and wind generation sites and near the trunk transmission wires connecting Denmark to Germany and other continental energy grids. The hydrogen component is dependent on the negative cost electricity available from the grid at key times. This enables the generation of green hydrogen through electrolysis driven by energy in the grid at a negative cost.

We were honoured to visit the Tønder biogas plant, one of Europe's largest biogas plants. This plant recently became fully operational. It is intended to produce 40 million N/m2 of biomethane and estimated to be able to power over 20,000 households with CO2 neutral energy. The plant operated by Lundsby transforms biomass into green CO2 neutral energy. The facilities integrate CO2 capture technology which adds additional environmental value by reducing emissions further. It is regarded the success of the Tønder facility showcases the viability of biogas as a stable, renewable and locally sourced energy alternative.

The biogenic CO2 has been provided to the European Energy PtX facility. The plant captures and liquefies biogenic CO2. The CO2 captured is of the highest standards and is intended to be used as a critical feed stock to produce green fuels and chemicals at the Kassø plant.

These two facilities work in tandem. The Tønder biogas facility produces renewable biogas. Biogas is then transported to the Kassø facility which

converts the biogas into sustainable fuels supporting the broader transition towards renewable energy solutions and closing the '*carbon loop*'. Understanding that biogas facilities produce not only gas but potentially CO2 enables a sharper focus on the fuel use and the input products.

I wish to thank European Energy for hosting our delegation.

After visiting these facilities, the delegation travelled to Odense the third largest city in Denmark, arriving late and concluding the day.

Nature Energy

On Friday 4th July the delegation started the morning with a feedback briefing, discussing the sites we had visited, allowing me to hear about the locations the delegation had visited before I was able to join. The delegation then visited the Nature Energy Midtfyn Biogas Facility for a tour.

Nature Energy owns and operates 13 biogas plants throughout Denmark, treating more than 5.1 million tonnes of biomass. Nature Energy is a clear market leader in Denmark's green transition and has already made a huge contribution to the green '*circular economy*'. They are now expanding their plants to other parts of Europe, already in the Netherlands and France and with further plans for expanding to the UK and North America. Touring the Nature Energy facility and witnessing firsthand the large-scale success of biogas was a valuable lesson in how biogas could be brought to Australia and incorporated on a large scale.

Nature Energy produces food waste and biowaste through their plant to produce green CO2 neutral biogas. The green biogas can be used for a variety of purposes, including heating homes, supplying energy to businesses, solving waste problems in society whilst at the same time

creating green energy that can support many sectors. The large tank digestors run at around 50 degrees with bacteria converting biomass into biogas and liquid fertiliser (a digestate), CO2 and hydrogen sulphide. The gas is then of a quality that enables direct injection into the national gas grid. Biogas can also be stored and assist with PtX, a critical part of the production of green energy for the future.

The destinations beyond the national grid for biomethane, include liquid fuels like CNG and LNG and range of other industrial processes. When we visited the Nature Energy plant, they were flaring gas in a rare occasion where further material could not be put into the grid.

The massive biodigesters and the associated production were observed closely by the delegation as was the sourcing of input from manure and food waste.

Nature Energy is a wholly owned subsidiary of Shell. Nature Energy's efficient large-scale plants show the way to producing biogas more cheaply with estimates of significant efficiencies possible by 2030.

I wish to record my thanks to Nature Energy for hosting our delegation.

This concluded the events of the delegation, we then travelled to Copenhagen where we departed to our individual destinations.

I wish to record my thanks to Ministry of Foreign Affairs of Denmark '*The Trade Council*' for hosting the delegation for which I was a member and to Dorothy Macanas Dellosa for her organisation, advice and good-natured assistance.

State of Green

In the afternoon on the 4th July after the conclusion of the formal delegation activities I met with Emma Askov from State of Green, a Danish a not-for-profit organisation based in Copenhagen.

I was honoured to be given a presentation on biogas development and regulatory frameworks for biogas systems and the incentives needed to ensure biogas is utilised and compliant. We also discussed local water authorities converting sewage into anaerobic digestion (AD) for biogas production, including agricultural and potentially industrial and residential waste.

Key points of discussion included Denmark's commitments to its carbon reduction plan as part of the EU. State of Green's productions, '*Green Hydrogen is Danish Hydrogen Denmark's push to decarbonise global shipping'* – and a '*District Energy'* white paper that looking at the benefits of District Energy described as the '*backbone of a flexible and resilient energy system'*.

District Energy offers an alternative to full electrification. I learned how Denmark's district heating enables sector coupling, often drawing on excess heat from industry that is increasingly used to heat local homes.

I learned from the presentation about the significant change in Denmark's energy mix over time, 44% of Denmark's energy is now from renewable sources (2023). This component is comprises of 24% wind, 54% biomass, 11% biogas, 5% solar and 6% heat pumps geo and hydro sources. Most of Denmark's achievements have involved a partnership between government and the private sector.

Denmark is also investing heavily in hydrogen through its, *'Developing a Danish Hydrogen Backbone'* program.

We also spoke about PtX (power to X). PtX refers to technologies that convert electricity, often from renewable sources, into other forms of energy or chemical products. The X can represent a variety of outputs, green hydrogen, synthetic fuels, which can then be used in various sectors. Essentially PtX supports the storage and transportation of energy in convenient forms. Denmark is heavily pressing forward with both the sources, the conversion, the storage and the usage of energy in this way.

I want to record my thanks to Emma Askov, Project Manager (Transport, CCUS, PtX). I would recommend those visiting Denmark to talk about energy programs and projects to visit State of Green, noting they are a remarkable resource on a range of critical issues and remarking they are very nice people.

UK

World Biogas Expo

On Monday 7th July I flew from Copenhagen to Birmingham to attend the World Biogas Expo and Summit at the National Exhibition Centre Birmingham.

'The World Biogas Expo is the leading global tradeshow dedicated exclusively to AD and biogas – bringing together thousands of delegates from nearly 100 countries, with representation from every continent. Running alongside the Expo is the World Biogas Summit, the premier global forum for AD and biogas thought leadership.'

With recent global trends and Victoria's push towards renewable energy this was an excellent opportunity to learn more about biogas and how Victoria can be best placed to utilise biogas for the future.

VCAT Z322/2025 Davis v Victorian Health Building Authority

On the 8th July I remotely joined the VCAT directions hearing for my case Z322 against the Victorian Health Building Authority. As the applicant of this Freedom of Information request, I am seeking a report relating to the Victorian Gas Substitution Roadmap for Public Health.

World Biogas Expo

On Tuesday 8th I attended the commencement function for the World Biogas Forum.

On Wednesday the 9th I attended the Opening Ceremony and welcome from Charlotte Morton OBE, Chief Executive at the World Biogas Association and keynote addresses from:

- Dan Jorgensen, European Commissioner for Energy;
- Martina Otto, Head of the Secretariat at the UN Climate and Clean Air Coalition;
- Filippo Munna, Sales Director Mobile Pipeline for Hexagon Ability; and
- Peter Zeniewski, Senior Energy Analyst for the Internation Energy Agency.

I was impressed by the keynote address of Peter Zeniewski, Senior Energy Analyst for the International Energy Agency. Mr Zeniewski's paper is important because it reported in detail on the recent formal paper released on biogas and biomethane by the IEA the paper is entitled, *'Outlook for Biogas and Biomethane A global geospatial assessment'*.

Raft Energy

My first meeting was with Raft Energy, I met with Alex van Klaveren CRO & Co-Founder, Benjamin Pluke CEO and Co-Founder, Mia Shaw Head of Marketing and Communications and Karl Ahmed COO.

Raft Energy Limited is waste energy company whose mission is to help Biogas/Renewable Natural Gas (RNG) plants get their highest return. Raft has a product '*Actich4r'*, which is tailored for individual feed stocks and significantly improves the performance of anaerobic digestors. The meeting was very useful to understand the approach adopted by the industry and the support it provides and the undoubted improvements in efficiency.

World Biogas Expo Day 2

On the second day of the conference, 10th July I attended a number of speeches and presentations from the various biogas experts. Some highlights include *French Leadership on Biomethane – A Model for the World* with Jean-Luc Fugit the President of Conseil Superieur de L'Energie and *France as a Biogas Pioneer* with Cecile Fredericq CEO of France Gaz Renouvelables.

These presentations focused on the French stakeholders driving innovation of biomethane into the national gas grid as well as farm scale AD deployment and digestate and nutrient management and the operationalising of its biomethane strategy. France's successful biomethane policy has offered financial incentives regulatory clarity and grid integration that other nations are now seeking to recreate. France has firm national targets, support for on farm systems and a well established supply chain. The papers presented made it clear that there are many lessons for Australia and Victoria. Victoria's policy has been confused, inadequate and lacking clarity.

Several roundtables were devoted to unlocking the challenge of digestate regulation. The potential of digestate will not be reached without clear regulatory requirements and quality assurance but it can become a significant financial part of the biomethane equation closing the financial gap. A clear observation of the conference is the growing interest of oil and gas firms investing expertise and money into the biomethane sector. This will no doubt lift efficiency and performance across the sector.

I also attended *Financing the Future of Biogas: Credibility, Carbon Markets, and the Tools to Unlock Capital* with Alycia Tolman Director of Carbon Markets at the American Biogas Council and Line Lundbye, Director at DK Energy & Global Biogas.

I was impressed by this presentation by the American Biogas Council which had undertaken significant public opinion polling and responses of voter's attitude to biogas. What they discovered is that given biogas is a large unknown entity to half of voters there is an immediate return on investment by educating voters on its merits as an energy source.

There was a 49-point boost just by sharing a basic definition on biogas. The description of biogas presented to respondents to achieve this boost was as follows,

'Biogas is energy captured from organic materials like manure and food waste, as well as wastewater solids as they break down. This process occurs in landfills, on farms or at dedicated facilities designed to process this organic matter and extract biogas. Biogas systems recycle these waste bio products into energy that can be used to power and heat homes, fuel vehicles, or generate electricity through engines and fuel cells. Organic fertiliser is a byproduct of biogas production that helps support soil health on farms.'

The favourable response to biogas shifted from 37% to 86%.

In the afternoon I had an important meeting with Kavya Koonampilli, Policy Lead at the World Biogas Association. While Ms Koonampilli is based in London, she is an Australian who grew up in Perth and is very familiar with Australian cities. As Policy Lead at the World Biogas Association I was pleased to meet her and discuss policy steps and ways in which the World Biogas Association may be able to assist Victoria. I am most honoured to be able to draw on the policy knowledge of Ms Koonampilli.

During the conference I met with Chris Huhne, Chair of the Anaerobic Digestion & Biorescouces Association (ADBA). Chris, a knowledgeable former Liberal Democrat MP has a great understanding of the sector and I found him very helpful in the matters he imparted in the formal presentations with which he was involved and in the informal discussion we had. ADBA has an important role supporting AD and helping explain the significant future options for biogas and biomethane.

After the conclusion of the conference, I took the train to London.

VCAT – Compulsory Conference Z2913/2024

On the night of the 10-11 July, I presented remotely for a VCAT Compulsory Conference in Davis v DEECA, case number Z2913/2024. As the applicant this is a Freedom of Information case where key documents sought by my office under FOI are being withheld by DEECA.

Institute of Public Affairs, 11 July

Early in the morning of the 11 July, I joined a telephone hook up with senior members of the Institute of Public Affairs to discuss the Victorian State Government's recent introduction of the '*Electricity Bill*' which strips long standing legal rights from farmers and communities and provides extraordinary new powers that will enable VicGrid and state authorities to force their way onto land, breaking into private property and farms. The Bill introduces new legal powers, above and beyond the traditionally significant powers, and as part of their push for long distance power lines to be built in the face of community opposition.

RenewableUK

I was pleased to meet with Nathan Bennett later that day. Nathan heads up government relations for the UK's main renewable energy trade body, RenewableUK.

RenewableUK is an influential voice in the United Kingdom's renewable energy industry. The body represents approximately 500 companies across a range of renewable technologies and supply chains. As a trade association supporting the UK renewable energy sector it plays a critical role in advocacy, networking and collaboration within the renewable energy sector. RenewableUK recently hosted Global Offshore Wind 2025.

Our discussion centred on wind energy and its significant place in generation in 2025 and beyond. I was interested to learn about the importance of offshore wind in the UK which has an installed capacity of over 15 GW across 45 windfarms. The UK government has ambitious targets of 50 GW installed by 2030. There is also a specific target for floating wind which is usually relevant in deeper water.

I explained Victoria's challenges in establishing a new industry and the challenges encountered by the current state government in finding a

suitable site for the assembly of wind structures in Victoria. I also explained the targets that have been set by the government for offshore wind.

There are many valuable learnings to be tapped for Victoria from the British roll out of offshore wind.

We also discussed issues facing onshore wind and other renewable energy technologies.

RenewableUK has produced a useful map of areas in the UK of renewable wind energy and supply chain growth (June 2025). Importantly they list Parliamentary constituencies with the most supply chain companies.

I was pleased to discuss biogas matters with Nathan and to understand more of its role in the United Kingdom as part of the overall energy and renewable energy mix in particular.

Conservative Environment Network

Later that day I met with Sam Hall, Director at the Conservative Environment Network (CEN). This was a deeply worthwhile meeting where we discussed the future of environment and energy policies and the critical role of conservative parties in working to deliver energy transition objectives while ensuring energy remained reliable and affordable.

Sam has deep experience within previous Conservative governments in the United Kingdom and was able to inform me of approaches adopted in the UK which may be of great interest in Victoria.

A wide list of environmental and energy issues and challenges were discussed enabling useful comparisons to be made between our jurisdictions.

He discussed the CEN manifesto from after the recent British General Election and the many different policy ideas that can be explored. The manifesto was published to inform the party's policy renewal process post-defeat in the UK. As with many ideas, policy ideas don't all have to be original, we are able to learn from other jurisdictions and to adopt valuable ideas and concepts.

Acting Agent General Finnley Cowden Senior Investment Director UK, Europe and Isreal State Government Victoria

Later on the 11th I met with Finnlay Cowden Senior Investment Director UK, Europe and Israel at the Australia Centre, Melbourne Place, The Strand. I had previously had discussions with him at the World Biogas Summit in Birmingham but was pleased to meet him and discuss a broader range of topics. I greatly appreciated Mr Cowden taking the time to discuss the role of the Agent General in London and the many trade and investment activities undertaken. We did discuss a number of renewable sector issues and renewable investment in Victoria as well as a range of other investment attraction challenges and opportunities.

Charles Ogilvie OBE, Senior Conservative Environment Adviser

On the 12th I met with Charles Ogilvie OBE, senior conservative environment adviser with roles in running COP 26 in Glasgow and was a special adviser to the Sultan of Dubai's COP 28. Mr Ogilvie's involvement in undertaking a role in running COP 26 and also as a special adviser to the

Sultan on Dubai on COP 28 means he is very experienced in understanding international environment and energy policy.

He is well connected with the Conservative Environmental Network and has played a significant role as a senior environment adviser to recent Conservative governments in the UK. Mr Ogilvie is also closely involved with COP 31 the location of which is yet to be determined but may well be in Adelaide in November 2026.

Mr Ogilvie will likely be in Australia in coming months and has agreed to engage with a number of Victorians on key energy and environmental policy matters. He currently works in offshore wind and was able to provide a great deal of important background to assist me in understanding the offshore wind sector in the UK. There are clearly lessons for Victoria in the British offshore wind experience. Mr Ogilvie was also knowledgeable concerning the UK's biogas achievements and provided me a deeper understanding of the position of biogas in the UK.

Italy

SIT Group

On 13th July I flew to Italy and travelled to Padua.

On the 14th July I was honoured to visit the SIT Group in Padua Italy, where SIT La Precisa was founded in 1953, almost 2,000 people work directly for SIT with more than 60% located abroad.

SIT creates smart controls and consumption measurement mechanisms for a more sustainable world. I was fortunate to visit their head office in Padua and one of their production facilities at Rovigo. SIT has a significant focus on research and development, bringing forward new product ranges

built with cutting edge production processes and the highest quality in innovation. They are most famous for meters with the highest quality measurement capacity for both gas and other products.

I met with Roberto Mottola, Chief Technology Officer, Marco Croin, Sales Director and Walter Albè, BU Director Heating and Ventilation. SIT also has an office in Australia, a residential office and a commercial branch. I was appreciative of the assistance of arranging this visit provided to me by Ross Jamieson, the Australian representative for SIT who is based in Melbourne.

The Victorian Government has launched a war on gas reducing the opportunities for gas appliance production in Victoria and Australia, favouring production of electrical heating and other products. This will directly affect the SIT firm and many others. I was at pains during my visit to convey to SIT that if elected in November next year the Liberals and Nationals will adopt a distinctly different policy. It would be driven by consumer choice and consumers would be allowed to choose gas products. In my view it was important to convey to the partner company that despite the current difficulties faced in Victoria by SIT and other companies that alternate policies were on offer that would not cost jobs in Victoria but would in fact open up new opportunities.

The SIT firm were generous showing me their R&D facilities at their HQ. I was incredibly impressed by the quality of these facilities and the commitment of their firm and its offices to the highest quality and best standards. Their factory die casting works was an important highlight.

It became clear to me at SIT and elsewhere that the European Union inspired shift to electrification has not proceeded at the pace anticipated and in many cases has stalled in a number of countries with significant demand remaining for gas appliances, boilers, heating and cooking appliances. It is a salutary lesson to Victoria in its headlong ideological

crusade to electrify everything. Consumers in Europe value gas products and continue to pay for them.

On the 15th I visited the Venice Biennale which has the 2025 exhibit. The Australian Pavilion was opened by George Brandis in 2015 and has stood the test of time still remaining an impressive pavilion.

The next day I travelled to Cremona.

Prodeval

I was fortunate to visit the Prodeval biogas plant, Pieve Ecoenergia Soc. twenty minutes' drive from Cremona in Cingia De' Botti. The Prodeval office is located in Piacenza, forty minutes' drive from the facility.

Prodeval are a major player in the biogas sector with 35 years of experience and more than 500 projects worldwide. Subsidiaries in Italy, Canada, Spain, Czech Republic, USA, Germany, Brazil and India. What is particularly interesting about their approach is the standardised and scalable approach. They have focused on equipping the biogas industry with innovative standardised solutions for upgrading biogas into biomethane and the liquification of bio-CO2.

A key focus is on the compact interchangeable and scalable skid-mounted structure of their facilities. They have tight control on production with one-off industrial production of up to 450 units per year, thereby reducing production costs and lead time. There is significant focus on training. This French company works to consider local constraints, available feedstocks, distance to the gas grid, preferred forms of uses of energy (heat, CNG, LNG and grid injection).

Prodeval has set ambitious biomethane targets with the implementation of support mechanisms and regulatory compliance. Their expertise enables them to capitalise on their supply chains, knowledge of alternatives and the tailoring of solutions. They work hard to diversify feedstocks for biomethane production, including biogas from landfill, food and agricultural waste and others. At the conference in Birmingham, I saw their analyst Sixtine Lefas speak and was impressed by the fact that this company appeared to understand more clearly than most the need to have standardised systems.

I want to record my thanks to Sixtine Lefas and Gaia V. Giuffredi the Prodeval Sales Coordinator. I was very appreciative to meet Simone Volter, I wish to record my thanks to the kindness shown to me on the day by the staff of Prodeval especially Simone Volter who ferried me between Cremona and the biogas plant and Gaia for her organisation of this most educative of introductions. I also met a number of other staff who were helpful in improving my understanding.

The head office for Italy (noting Prodeval is a French company) is in Piacenza and I was able, in meeting a range of staff at the HQ, to ask questions and extend my knowledge. Large on the wall in boardroom lays out the history of Prodeval and its expansion particularly within the EU but internationally from France.

The plant I saw is a typical Prodeval model, modular but highly modern, electronically controlled with tight control of input biomass, the plant is co-located with a large dairy farm operation.

The plant drew biomass from the surrounding area with care taken from the operators to ensure the right and steady mix. The biogas is produced concentrated, processed to a high standard and injected directly into the gas grid.

After my productive time at Prodeval I travelled to Rome on the 18th for my final meetings.

Diplomacy Ecco - The Italian Climate Change Think Tank

On the 18th I met with Frederico Tassan-Viol, Senior Policy Advisor for Diplomacy Ecco. Ecco is the Italian climate change think tank. I spent several hours talking to Frederico. He explained in some detail how a number of the European energy grids operate, particularly the Italian grid. He focused at my request on the mix within the grid, of both renewables including renewable gas, and reserve fossil fuel plants. The overall renewable component of the grid is increasing year by year.

There is gas capacity scheme to underpin the stability of the scheme with new gas plants recently added. Mr Tassan-Viol talked about the productive market being open to competition, he discussed electrification including electrification of certain food processing. He did highlight certain state guarantees assisting with price stability over up to 10 years - contracts for difference – with a quid pro quo seeing industrial consumers invest in renewables. This model has been helpful for the expansion of biogas volume with a limited expenditure of public money. The mandating of a share of biogas has supported expansion. He also noted the importance of historical feed-in tariffs.

We also discussed a number of issues concerning hydrogen, water authorities and their partnering with farmers and EU support. The EU support has significantly underpinned groups of farmers implementing biogas projects.

One topic of discussion was Carbon Capture and Storage (CCS) both within Italy and elsewhere in Europe.

Mr Tassan-Viol discussed the upcoming COP 31 with discussion about the likely venue which may be Adelaide.

The strength of the manufacturing sector in Italy has been a major factor for support of the development and expansion of energy alternatives.

I was very appreciative of the generous time Mr Tassan-Viol spent with me and the enhanced understanding he assisted me with.

This was my final meeting of the trip and in the early morning of the 20th July I flew back from Rome to Melbourne.

Conclusion

I have made a number of comments and advice during this report, many of which stand on their own and in this conclusion, I make some additional comments and conclusions.

Recent reports strongly support the importance of many of the matters I have seen in Denmark, the UK and Italy regarding biogas and biomethane.

The countries chosen are relevant leaders in biogas and biomethane production in Europe. I note in particular the '*Future Fuels CRC'* report, '*Policy pathways to advance Australia's biomethane sector: learning policy lessons from international jurisdictions*.'

It singles out a number of countries including Denmark, the UK and Italy. Following its detailed research between July 2024 and February 2025 the reports summary says:

"Biomethane industry development in Australia has been hampered by a lack of policy support, attitudinal and economic factors. From an economic perspective various modelled production costs vary between $9.40-$21/GJ depending on feedstock technology and other variables, as compared to approximately$12/GJ for east coast wholesale gas contracts in 2024. The cost uncertainty and potential cost gap between biomethane production and natural gas, which biomethane aims to substitute, means that biomethane production typically requires additional value streams associated with green premiums and sale of by-products to de-risk investments and improve its cost competitiveness. Recognition that the value derived through biomethane development extends beyond the energy content and into these other areas is necessary for significant market growth to occur in Australia. A review of other countries where a meaningful biomethane industry has been developed demonstrate the power of enabling policies which recognise the carbon abatement potential of biomethane and value of digestate produced from upgrading biogas to biomethane through anaerobic digestion. Australian interviewees identified widespread challenges on messaging and knowledge of what biomethane is and about the potential of renewable gases to meet decarbonisation challenges in hard to abate sectors. Regulations on the use of waste for the production of biomethane, digestate use and flaring were also identified as issues requiring attention.

As of 2025, Jemena's Malabar plant in NSW is the only operational biomethane project in Australia. To date Australia has implemented few specific policies for biomethane. Hydrogen has garnered attention from government to meet emissions targets, biomethane has largely been overlooked. Recent policy developments and growing interest from both government and industry point to a recognition of the potential of

biomethane to support Australia's decarbonisation of hard to abate sectors. Notable recent developments include: changes to the National Gas Laws to allow various gases, including biomethane, to be injected into natural gas networks; the launch of GreenPower's Renewable Gas Certification scheme to verify and track biomethane, enabling the trading of its 'green value'; the creation of an Australian Carbon Credits Unit methodology for biomethane; and Victoria's recent Renewable Gas Directions Paper, raising the possibility of establishing a state-based biomethane target.

In terms of policy approaches our study finds there are significant differences to the approaches taken by North America (US and Canada) and European countries(Denmark, Italy, UK) to develop a biomethane industry. In the European countries we examined, the development of biomethane has largely been driven by policies and investments that incentivise and support production ('technology-push' policies). Within these policies governments guarantee support for project developers through feed-in tariffs or premiums, as well as capital cost support. An example of this support is the European Union's REPowerEU Plan which commits to increasing biomethane production to at least 35 billion cubic metres (1,260 PJ) per year by 2030. €27 billion has been earmarked for investment under this scheme, intended to provide an additional 6.3 bcm (230 PJ) of capacityRP2.2-05 Policy pathways to advance Australia's biomethane sector: learning policy lessons from international jurisdictions4each year. In contrast, biomethane markets in Canada and the US have been largely driven by regulatory 'technology-pull' policies, often through mandated quotas that oblige gas utilities or fuel suppliers to blend a proportion of renewable gas into their gas network or fuel supply respectively. This obligation creates long-term demand certainty and has enabled the formation of compliance-based markets supported by biomethane certification and tracking systems that enables biomethane to be traded between producers and suppliers. In the Us and Canada, biogas and biomethane have been driven by strong mandated quotas for renewable and low-carbon energies. Coupled with a suite of financial incentives and supports that further drive the supply side, these obligations

have created strong demand. The 2020 Inflation Reduction Act (IRA) is one example, committing$US10 billion in incentives and tax credits for biogas and biomethane expansion, and setting strong targets. These ambitious government policies, targets, and programs have been instrumental in the development of these international biomethane markets and associated industries.

In terms of lessons for Australia, we find that both the demand side approach of North America and the supply side support of Europe are both policy options that could be applied domestically. Our stakeholder consultation and review has revealed that Australian governments have shown little interest in biomethane to date, with a large focus on electrification and hydrogen. However, the gas supply crisis in Victoria and the potential delays of hydrogen technologies reaching commercial readiness have led to some states, particularly NSW and Victoria, showing interest and promising policy developments of recent years also driven by the gas industry and demand from end users. These developments include GreenPower certification of biomethane, a market-based accounting method being developed for reporting of carbon abatement under the National Greenhouse and Energy Reporting Scheme (NGERS) framework, and changes to the Gas Rules that accept biomethane as an eligible gas."

I attach a link to this report from which we have quoted, Policy pathways to advance Australia's biomethane sector.

The CRC report make clear, biogas is likely to form an important part of Victoria's energy mix in the future this was reinforced by what I saw in Europe and the rapid rollout of biogas in Denmark, the UK and Italy.

Victorian State Government support for biogas and biomethane through its discussion paper and support has been lacking. Whilst a process has been conducted it has been slow, cumbersome and it is clear Victoria is far behind many other jurisdictions.

There are some clear lessons from sites I saw in Europe:

- High standards and ambitious targets are important in driving success for the expansion of the biogas sector.
- Facilities working together to share resources. Co-location of relevant parts of production and biogas usage is relevant and should be considered.
- A clear and standardised regulatory approach is important. Clear signals are necessary.
- The control of the quality of biogas injected into the gas grid is important and the terms of connection for producers are also matters that must be clear and supportive of additional biogas.
- Schemes supporting biogas and biomethane through direct subsidy have been common throughout Europe and a significant part of the success of such models.
- Regulatory support for direct injection into the grid has been important in many locations as has mandating specific shares of biogas within the gas grid overall.
- Involvement of rural communities including farmers in the development of local projects has been critical. In some cases rural co-operatives have been important proponents for local biogas production.
- A focus on the diverse feedstocks and matching changing feedstock sources to the desired outcome is important.
- Digestate has potentially significant value, but much be of known and reliable quality.
- There are alternate uses for various biowaste feedstocks which create competitive demand for the use of such feedstocks.

I also want to particularly thank Rangini Prasad, Executive Director of the Victorian Bioenergy Network, for her advice and suggestion that I join both the Danish delegation and the World Biogas Expo/Summit in Birmingham. I

also want to record my thanks to Elizabeth Lewis-Gray the President of the Victorian Biogas Network.

It is important I believe to thank those who have hosted in Denmark, the UK and in Italy. The generosity of many has enabled me to learn a great deal about the matters surrounding biogas and to understand the success of Europeans in adopting biogas, noting this has also highlighted a number of the deficiencies in Victoria's approach.

The Hon. David Davis MP

Shadow Minister for Energy and Resources

Member for Southern Metropolitan Region

August 2025

Accommodation and Transport Itinerary

ACCOMODATION CLAIMED (EITHER IN 2024/25 OR 2025/26 FY)					
Date	**Expense**	**Location of expense**	**Cost in Foreign Currency**	**Cost in AUD**	**Exchange rate**
4-6-Jul-25 (Incurred 4 July)	Accommodation	Denmark - Copenhagen	N/A	AUD 542.51	N/A
7-10-Jul-25 (Incurred 24 June)	Accommodation	England - Birmingham	N/A	AUD 895.00	N/A
10-13-Jul-25 (Incurred 24 June)	Accommodation	England - London	N/A	AUD 1,145.00	N/A
13-16-Jul-25 (Incurred 12 July)	Accommodation	Italy - Padova	N/A	AUD 724.91	N/A
16-18-Jul-25 (Incurred 14 July) (Refunded one night)	Accommodation	Italy - Padova	N/A	AUD 394.11	N/A
18-20-Jul-25 (Incurred 17 July)	Accommodation	Italy - Rome	EUR 127.50	AUD 228.03	1.788478387

COMMERCIAL TRANSPORT CLAIMED (EITHER IN 2024/25 OR 2025/26 FY)					
Date	**Expense**	**Location of expense**	**Cost in Foreign Currency**	**Cost in AUD**	**Exchange rate**
N/A (Incurred 16 June)	Flight (incl return)	Melbourne - Australia	N/A	AUD 7,157.00	N/A
3-Jul-25 (Incurred 16 June)	Flight partial cost	Melbourne - Australia	N/A	AUD 725.00	N/A
7-Jul-25	Train	Denmark - Copenhagen	DKK 30.00	AUD 7.25	0.241536271
10-Jul-25 (Incurred 24 June)	Change fee	England - London	N/A	AUD 175.00	N/A
11-Jul-25	Train	England - London	GBP 16.60	AUD 34.08	2.053050309
12-Jul-25	Train	England - London	GBP 16.60	AUD 34.07	2.052284171
13-Jul-25	Train	England - London	GBP 16.60	AUD 34.13	2.056001305
13-Jul-25	Train	Italy - Milan	EUR 19.00	AUD 33.76	1.776761659
13-Jul-25	Train	Italy - Milan	EUR 47.00	AUD 83.51	1.776761659
13-Jul-25	Taxi	Italy - Padova	EUR 15.75	AUD 27.98	1.776761659
15-Jul-25	Train	Italy - Padova	EUR 4.90	AUD 8.73	1.782064122
16-Jul-25	Train	Italy - Padova	EUR 16.20	AUD 28.88	1.782868048
20-Jul-25	Train	Italy - Rome	EUR 14.00	AUD 25.00	1.785941515