

From: noreply@feedback.planningportal.nsw.gov.au on behalf of [Planning Portal - Department of Planning and Environment](#)
To: [DPE PS ePlanning Exhibitions Mailbox](#)
Subject: Webform submission from: Activation Precincts SEPP and the Wagga Wagga master plan
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Submission Type: I am submitting on behalf of my organisation

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Submission file:

[bioenergy-australia-submission--wagga-wagga-special-activation-precinct.pdf](#)

Submission: Please find attached a submission from Bioenergy Australia

URL: <https://pp.planningportal.nsw.gov.au/WaggaWaggaSAP>

BIOENERGY AUSTRALIA SUBMISSION

Wagga Wagga Special Activation Precinct

WAGGA WAGGA, REGIONAL NSW'S FUTURE BIOHUB

Bioenergy Australia (BA) is the national industry association committed to accelerating Australia's bio economy. Our mission is to foster the bioenergy sector to generate jobs, secure investment, maximise the value of local resources, minimise waste and environmental impact, and develop and promote national bioenergy expertise into international markets. Bioenergy Australia thanks the NSW Department of Planning, Industry and Environment for the opportunity to provide a submission on the proposed Wagga Wagga Special Activation Precinct.

Firstly, BA would like to congratulate the Department on its ambitions to deliver growth and new job opportunities for regional NSW through the development of the Special Activation Precinct. We are delighted to see that the draft plan for Wagga Wagga considers sustainability, seeking to minimise carbon emissions and environmental impact. We would like to take this opportunity to point out some key areas where these commendable aims can be further strengthened through inclusion of bioenergy.

In particular, we note it is an objective of the Regional Enterprise zone to "encourage the development of industry leading renewable energy generation and resource and waste management". It is precisely in this area that bioenergy excels, and we request the Department consider how bioenergy can support achievement of this aim. Accordingly, we wish to highlight the proposed plant under development by Bomen Bioenergy to service the Riverina Oils & Bioenergy oil processing plant within the precinct, which serves as a model of what might be possible within the Wagga Wagga SAP.

Bioenergy is uniquely positioned to provide both a source of clean, renewable heat and power alongside a solution to waste management issues. Whilst solar and hydrogen have been earmarked as sources of renewable energy within the draft plan for the Precinct, no provision has been made for bioenergy. Although an excellent source of energy during daylight hours in fine weather, solar has its limitations. Biogas supports the creation of a stable and affordable electricity system by providing dispatchable renewable electricity for when the sun isn't shining. Similarly, hydrogen is a promising future technology but it will likely be a number of years before advancements enable the technology to be a substantial source of renewable energy for the Precinct. Bioenergy is proven and can be implemented immediately as a source of clean, renewable energy.

Bioenergy is produced from waste materials such as agricultural and animal residues, as well as municipal and industrial waste. Bioenergy production delivers economic benefit from otherwise unusable resources and actively reduces landfill and other demands for waste storage or remediation. In accordance with the waste hierarchy, waste should be recovered for its highest order use wherever it is economically feasible to do so. Inputs can come from waste-water treatment plants, agribusiness, organic and municipal waste. Bio hubs support recycling waste into higher value uses and facilitate:

- A diversion of waste from landfill
- Generation of reliable and dispatchable renewable energy

- Production of non-fossil based fuels, bio-products such as chemicals, plastics and fertilisers
- Regional economic development and job creation.

We see ample opportunity for inclusion of a bioenergy hub within the SAP. A bio hub is a facility where councils and private business cooperate to recover the highest value from regional waste streams, offering opportunities for revenue generation and bioenergy creation. In addition, it has been shown that bioenergy provides more sustained jobs than any other renewable energy form. With this in mind, we would encourage the NSW Government to consider how to prepare the ground for future shared services infrastructure that would enable the efficient distribution of renewable heat, power and/or gas from a central point, to enable economies of scale to be realised. Accordingly, the precinct Master Plan should consider and make provision for a specific and strategic location for a central utilities hub as well as either taking on the up-front cost to lay the conduits for future delivery of such services throughout the SAP, or otherwise building this into the planning scheme for the industrial subdivision from the outset.

Inclusion of a bioenergy hub within the SAP would strengthen the legitimacy of the Precinct as a leader in renewable energy, innovation, sustainability and waste management, while also helping to attract additional industrial tenants and new investment. Government could assist here by taking the lead in building a prospectus that will attract new industrial manufacturing clients to the SAP and present them with a compelling business case for co-location - i.e. where they can potentially benefit from “behind the meter” services to be delivered from a bio hub.

Development of a regional bioeconomy will contribute substantial employment opportunities within Wagga Wagga and help to make businesses in the region more internationally competitive. As widely demonstrated by the results achieved internationally, the development of a strong bioeconomy can provide skilled employment opportunities to regional areas and stimulate economic development through the delivery of revenue streams outside of traditional agriculture, forestry and waste industries. The International Renewable Energy Agency (IRENA) reviews renewable energy and associated jobs on an annual basis: a [2019 review](#) shows the global employment in the bioenergy sector has substantially grown in the last few years, achieving 3.18 million jobs in 2018. Impressively, the CEFC report [“The Australian bioenergy and energy from waste market”](#) estimates that bioenergy has the potential to attract at a minimum \$3.5-\$5 billion investment, mostly in regional economies.

Through Bioenergy Australia and its member organisations such as the Danish Biogas Alliance, the Wagga Wagga SAP has the opportunity to leverage learnings from precedents both here in Australia and internationally to de-risk and fast track their progress. The Danish Biogas Alliance and its partners have over 30 reference biogas plants ranging from farm scale to regional and municipal dispersible power solutions, some of which have operated for more than 10 years. By way of relevant example, in 2015 in Johannesburg they completed a biomass to energy plant, established to sustainably manage local organic waste streams, provide cost effective electrical energy to the BMW automotive manufacturing facility and to enrich local agricultural land and industry, promoting local and regional employment and wealth creation. This plant redirects 275,000t of organic waste substrates annually from other fates, harvesting 7.70 mil cm of clean green biomethane, which in turn is used to create enough electricity to run the equivalent of more than 6,000 Australian homes. These principles and equally learnings from Denmark, France, Germany, Spain, Ireland, China, Philippines, are now readily available locally to Australian municipalities and industry, allowing them to stand on the shoulders of others.

Closer to home we encourage the Department to consider the ambitions of the Bundaberg bioHub, where Utilitas Group Pty Ltd has collaborated with Bundaberg Regional Council to acquire a redundant regional waste water treatment plant to redevelop into an next generation industrial park delivering

energy and resource recovery services to tenants. Relevant to the Wagga Wagga SAP, the Bundaberg bioHub, due to launch in October 2020, has the advantage of being able to offer industrial and commercial tenants access to laboratory services, organic waste services, wastewater services, electricity, gas, CO2 and hot water as part of their tenancy agreements. Utilitas Group Pty Ltd and Bundaberg Regional Council have established an annual event, Bioeconomy Bundaberg, to showcase all that Bundaberg Region has to offer including the Bundaberg bioHub.

We suggest the following to fully maximise the opportunity for the Wagga Wagga Special Activation Precinct:

1. Allocate funding for a thorough analysis of feedstock in the region and within the precinct
2. Allocate funding for the delivery of a Wagga Wagga bio hub strategy
3. Work with the existing local government to implement diversion of organics from landfill to drive the development of a new facility to extract the energy and deliver high value add on products

We invite the Department to contact us to access the expertise of our broad membership as the Master Plan for the Wagga Wagga Special Activation Precinct is developed. Please get in touch with Georgina Greenland via email at [REDACTED] to arrange a meeting or make a request.

Again, thank you for the opportunity to provide this feedback.



Yours sincerely

Shahana McKenzie, CEO Bioenergy Australia