THE UNIVERSITY OF NEWCASTLE AUSTRALIA

Centre for Urban and Regional Studies

Thank you for the opportunity to comment on the *Draft Hunter Regional Plan* and the *Draft Plan for Growing Hunter City* (the Plans). We support many of the directions set out in the Plans and congratulate the Government in its efforts to comprehensively plan for the next 20 years for the region. In this submission, we outline what we believe are the Plans' strengths before making recommendations that we believe would strengthen the Plans.

STRENGTHS OF THE PLANS

- Region-wide planning that incorporates the Upper and Lower Hunter and the Great Lakes Local Government Area
- Integration of land use and transport planning
- Formal recognition of Indigenous communities in the Hunter Region Plan

In particular we support:

From *Draft Hunter Regional Plan*:

- Direction 2.3 Enhance inter-regional transport connections
- Direction 3.1 Protect the natural environment and biodiversity
- Direction 3.2 Secure the health of water resources and coastal landscapes
- Direction 4.2 Provide housing and services that meet local communities' needs
- Direction 4.4 Strengthen the economic and cultural self-determination of Aboriginal communities

From *Draft Plan for Growing Hunter City*:

- Direction 1.2 Provide a greater mix of housing types to meet changing demand
- Direction 1.3 Enhance city-wide transport
- Direction 1.4 The City's blue and green network
- Direction 2.2 Build on the quality of the inner city lifestyle

TO IMPROVE THE PLANS

The Hunter Region is at **a crucial moment of transition**. Although the Plans contain an overall set of actions that point in the right direction, they are nonetheless largely based on a 'business-as-usual' approach. We believe there is an opportunity here to be more strongly aspirational, and to build on the potential of the Plans to strategically help the Hunter transition to a world that is going to be potentially very different from the current one. See especially:

(2) Reflect a climate changing environment

(3) Capitalise on new and renewable energy directions

There are also a number of areas that we believe could be strengthened by the addition of some extra features. See especially:

(1) Plan for Indigenous Hunter City

(3) Diversify the economy

(5) Actively support the provision of diverse housing

(6) Envision the future city

We discuss each of these areas below.

(1) Plan for Indigenous Hunter City

It is encouraging that the *Draft Hunter Regional Plan* recognises the role of Indigenous people in the broader Hunter Region. The *Draft Plan for Growing Hunter City* should similarly recognise the region's urban Indigenous communities. Hunter City is also Indigenous Country, and there is a contemporary and dynamic Indigenous culture in this area which needs to be incorporated consistently and cohesively into the plan for the city's future.

(2) Reflect a climate changing environment

Both Plans mention the planet's warming climate; however, we are concerned that the Plans do not sufficiently register the potential impacts of projected climate changes on the Hunter Region.

Projected climate changes and the associated risks have been identified in a series of reports prepared by researchers for the Hunter and Central Coast Regional Environmental Management Study (see Blackmore *et al* 2010a, 2010b, 2010c). The series identifies a range of projected climate changes that will result in **'extreme risks'** and **'high risks'** to communities and environments in the region (see especially Blackmore *et al* 2010a, pp. 30-38). The projected climate changes producing these risks include:

- Sea level rise increase of 0.4m by 2050 and 0.9m by 2100 (and adjusted to +0.37m and +0.845m due to regional impacts) (Blackmore *et al* 2010a, p. 26)
- More widespread catchment and flash flooding caused by extreme rainfall events, sea level rise and extreme sea levels (ibid p. 33)
- Increased incidence of extreme sea levels (as a result of ~4% increase in East Coast Low formation) during autumn and winter (ibid, p. 26). (And noting that wave heights associated with East Coast Lows can be in excess of 7 metres (ibid, p. 20).
- Overall increase in the frequency of extreme heat events (Blackmore *et al* 2010b, p. 1)
- Changes in autumn and summer wind gusts worsening 'fire behaviour' and risk, particularly in highly populated coastal areas (Blackmore *et al* 2010c, p. 1).

These projected climate changes are likely to result in impacts that need to be taken into account in planning for the Hunter Region, including for example:

- Impacts on essential infrastructure located near the coast or waterways, such as airports, roads, train lines
- Impacts of flooding and bushfire on proposed areas for development and on current regional and urban centres

- Impacts on current agricultural practices.

Our view is that **these impacts are not sufficiently considered** and that the Plans too readily assume that the next decades will simply be an extension of 'the way things are'. Here it is worth noting that the most recent data suggest that global warming is continuing unabated. Both NASA and the National Oceanic and Atmospheric Administration (NOAA) recently announced that January 2016 was the ninth straight month of record-breaking temperatures for the globe (National Snow and Ice Data Center, 2016) (and NOAA has just announced that February 2016 was the hottest month recorded in 137 years with an average temperature 1.21°C (2.18°F) above the 20th century average (NOAA, 2016)). This has heightened concerns about ice melt in the Arctic with surface temperatures in this region in January 2016 being more than 4 degrees Celsius above the 1951 to 1980 average, and with February 2016 having the lowest sea ice extent in the satellite record (National Snow and Ice Data Center, 2016). **These developments suggest that it would be prudent to plan for the upper limits of projected climate changes.**

(3) Capitalise on new and renewable energy directions

We believe that the *Draft Hunter Regional Plan* overestimates the contribution that fossil fuel-based extractive industries will play in the region's future. Already there are indications that the basis of the Hunter's energy economy is changing. Major markets such as China and India are strengthening their renewable energy production. For example, it is expected that China's solar power will reach capacity of 400GW (or 400,000 MW) by 2030 (International Energy Agency, p. 17); India is aiming to deploy 20,000 MW of grid connected solar power by 2022 through the Jawaharlal Nehru National Solar Mission, administered through its Ministry of New and Renewable Energy.[1] A weakening demand for coal from overseas markets, particularly China, is expected (due both to the shift to renewables and nuclear energy, and a bolstering of domestic coal production). There are signs that this is already occurring with a 35 per cent decline in China's coal imports in 2015 (Institute for Energy Economics and Financial Analysis, 2016). Some economists are even predicting by the end of the decade China's thermal coal imports (which are used in power stations) could be "at virtually nothing" (Tom Pugh, Capital Economies cited in Murray 2015).

Changing global systems for carbon regulation will also impact on Australia's market. The global Paris Agreement of 2015 represents a **legally binding commitment** to cut greenhouse gas emissions and provide support for clean energy futures. Together with previous agreements, this will drive significant investment in renewable energy development. We are concerned that the assumption in the *Draft Hunter Regional Plan* that "coal mining will be an ongoing priority industry, predominantly due to its export value" (p. 20) may be overly optimistic and underestimate changes in the energy sector.

These changes are also being experienced in Australia's domestic energy markets, for example:

- As at March 2016, there were over 2.4 million small-scale renewable energy systems installed in Australia, a figure that continues to grow (Clean Energy Regulator 2016).

[1] As a comparison, in 2014 Australia had a total of 4,100 MW of grid connected solar power (International Energy Agency, 2015, p. 16).

- The Australian Energy Market Operator (AEMO) has reported that the rapid uptake of solar at the household level is leading to an unprecedented reduction in electricity demand. Their prediction is that **the current electricity generation industry is being confronted not with incremental change but with "an abrupt 'step change'"** (AEMO 2011: 9-1).
- In February 2016, recognising an "evolution occurring in the energy sector", AGL Energy announced its withdrawal from coal seam gas production and the launch of a $3billion renewable energy fund for **the development of large-scale renewable energy projects** (Macdonald-Smith, 2016a).
- In March 2016, the Sydney Morning Herald reported "**a surge of overseas interest in the wind and solar sector**" in Australia, citing examples such as the recent purchase of a NSW wind farm by China's State Power Investment Corporation (for an estimated $300 million), and the purchase by Thailand's Wind Energy Holdings of 50 per cent of the Newcastle-based CWP Renewables, a developer and asset manager of renewable energy projects (Macdonald-Smith 2016b).

The transformation in the energy sector, globally and in Australia, provides the Hunter with a unique opportunity to position itself at the forefront of emerging markets in renewables. **Currently, the Draft Hunter Regional Plan misses this opportunity to not just ready the region for a new energy future but to potentially play a lead role** (particularly given the region's existing infrastructure, skills base and reputation for energy production; and Newcastle's involvement in pioneering initiatives including the CSIRO Energy Centre, Newcastle City Council's Smart City Initiative and the *Smart Grid, Smart City* trial).

We acknowledge that Action 2.1.1 of the *Draft Hunter Regional Plan* identifies the potential for diversification of NSW energy supplies and notes that steps are underway at the State-level to identify lands capable of accommodating large-scale renewable energy projects. However, we believe that these actions need to be brought to the fore, given emerging international and national-level developments in the energy section. **We particularly recommend the *Draft Hunter Regional Plan***:

- Identifies areas suitable for the development of large-scale renewable energy capture and storage, particularly noting that the Clean Energy Council has identified that developments in storage are a "**game changer"** (2015), and that the "**energy storage revolution"** will have "**profound implications"** (p. 5).
- Acknowledges shifts in the development industry and identifies possibilities for 'off grid' greenfield and infill development in the Hunter. Huntlee, for example, is on track to be Australia's first new town to be developed off the grid, an initiative that reflects "an emerging competitive market for large-scale local microgrids" (Sheather 2015).

(4) Diversify the economy

We wholly endorse the priority given to diversifying the economy and the recognition given to the creative industries in the Hunter. However, there are **opportunities for diversification that are missed**. As highlighted above, one opportunity is to bring to the fore diversification in the energy sector.

A second opportunity is to broaden the understanding of economy to include not just paid work activities but the range of unpaid, volunteer and alternative work activities that people

participate in that **contribute directly to individual, social and even environmental wellbeing,** and **help to build a diverse and resilient economy**. We demonstrate the implications of this expanded understanding of work through the example of 'urban agriculture'.

In the Hunter people are already participating in a range of agricultural-based activities that are contributing to their communities and building resilience. For example, the 2010 Newcastle Community Garden Project documented the array of community gardening activity in which people were:

- working unpaid to produce fruits and vegetables for their own use, and
- working in a volunteer capacity to produce fruits and vegetables that were given to others in the community.

Other jurisdictions are building on precisely these types of agricultural activities that come into view when we take an expanded understanding of work—and they are using these activities as the basis for reshaping their urban environments and economies. The City of Vancouver has perhaps the most developed urban food system that incorporates backyard and verge gardening, community gardening and even urban farms that operate on a commercial basis (City of Vancouver, 2013a; see also Toronto Public Health, 2010). The system also incorporates food composting, beekeeping and poultry-keeping; and provides opportunities for livelihood-based small food businesses. In short, the City envisions this range of agricultural activities and work practices as **the basis for the development of a green economy**. To develop this green economy, the City is looking to a range of measures, including:

- nominating urban farming as a defined urban land use
- developing community composting infrastructure
- strengthening alliances and partnerships across the region
- setting as a target the goal of increasing city and neighbourhood food assets by 50 per cent over 2010 levels by the year 2020 (City of Vancouver, 2013b).

Although this is a City-level action, it demonstrates the type of strategic approach to building a more diversified economy that could be applied at a regional level. **We therefore recommend that the Plans consider the potential for diversifying the economy by including the range of work activities that people participate in and that can be harnessed for novel economic initiatives such as the building of an agriculturally-based green economy.**

> "Given the many challenges that lie ahead — climate change and resource depletion, growing inequity, loss of farmland and farmers, and rising health care costs from diet-related illness — it is critical that cities and citizens around the world play their part. The Food Strategy lays out a road map for how food assets can be expanded in neighbourhoods across the city to develop a more resilient and equitable food system. A food strategy is a powerful tool for the City to use to meet its social, environmental, economic and health goals. By taking a coordinated approach to all that the City can do in relation to food, the Food Strategy provides the platform to integrate different goals and actions to create new synergies."
>
> Extract from City of Vancouver, 2013a, Forward

(5) Actively support the provision of diverse housing

We commend that the plan recognises the importance of social and affordable housing. There are three issues that could be considered to further ensure that housing is delivered to meet the needs of varied needs of communities.

First, it is problematic that in Action 4.2.3 of the *Draft Hunter Regional Plan*, responsibility for social and affordable housing provision is framed as a responsibility of local government. Local government has neither the jurisdictional powers nor the resources to adequately meet these goals. While requiring councils to prepare a local housing strategy is clearly important, **other state government action will be needed during the life of the plan to ensure that the region's housing needs are met.**

Second, in January 2016 the State government announced a new 10 year plan for social housing, which includes plans to regenerate existing social housing and encourage people to access assistance in the private rental market. In announcing the strategy, the State government acknowledged that it was important to maintain access to social housing for a range of vulnerable people, particularly those suffering from a long-term disability and the frail aged. Given the aging of the population in the Hunter region, and the concentrations of aged populations noted in the plan, it is important that the plan **identify the means by which an adequate supply of social housing will be maintained and expanded to meet the needs of residents.**

This would involve a more formal acknowledgement of **the role of Housing NSW and community housing organisations** as key actors providing social housing. Housing NSW currently manages a large portfolio of properties in the Hunter region. Planning for an adequate supply of affordable housing should therefore explicitly acknowledge the role of Housing NSW. The region also has a rich tapestry of community housing organisations that are increasingly active in this sphere. Their role needs to be taken into account for effective delivery of affordable housing across the region. For example, Compass Housing, which is based in the Newcastle region, now manages over 4,000 properties in NSW and Queensland. The plan needs to specify, through Actions, a process through which community housing organisations such as Compass can be engaged with the planning process to ensure a supply of affordable housing is maintained for vulnerable people.

Third, planning for adequate housing for students could also appear more prominently in the plan. The plan notes the importance of the University of Newcastle (UON) as a key site of jobs and an access node in the Hunter. UON attracts students from the Hunter, but also from elsewhere in Australia, particularly regional NSW and internationally. **Ensuring an adequate supply of appropriate housing for these students is critical**. Research into student housing in Melbourne could be instructive here. In exploring student housing in Melbourne, Fincher and Shaw (2009) argue that:

> If ways forward were to be devised, to remake this place to which so many students from overseas come, what steps might be suggested? A wider range of housing types and rents needs to be provided and marketed to prospective students from overseas and from rural parts of Australia. Planning frameworks could draw on overseas models to encourage such housing diversity in the interests of students. (p. 1900)

Such remarks are equally relevant to planning for the supply of student housing in the Hunter.

Fincher and Shaw go on to argue that:

> In the housing sphere, then, there is much to be done, requiring cooperation between the universities, governments, housing providers, and developers. (p. 1900)

The Plans could usefully contain Actions that foreshadow these types of cooperative relationships to ensure an adequate and appropriate supply of student housing to support the role of UON and its students in the economic, social and cultural life the Hunter Region.

(6) Envision the future city

The plan is bold in its articulation of the concept of 'Hunter City' as the region's core functional urban area. This is a worthwhile attempt to plan holistically and to activate integrated landuse and transport planning. We have three concerns that we believe should be addressed in the *Draft Plan for Growing Hunter City*.

The first relates to the potential of the 'Hunter City' concept to generate **a sprawled city** in the absence of a clear statement of the limits to growth, particularly given that Hunter City covers an especially large geographic area. The risk is that without clear limits or boundaries to urban expansion, development will occur in a piecemeal fashion and incrementally erode other non-urban areas.

The second relates to infill development. We appreciate the emphasis given to infill development and the recognition that infill development can be one way of containing the urban sprawl mentioned above. However, **infill needs to be well-planned and actively monitored** if it is to achieve the significant social and environmental benefits that are possible (e.g. connectivity, accessibility, access to collective amenity and open space). As well the cumulative impact of multiple infill developments needs to be taken into account. Therefore it is essential that the plan pays more explicit attention to how to monitor, and address the extent and rate of infill development.

Third, **there is great potential for the plan to articulate a stronger vision for the urban future of Hunter City.** Broad actions are included around sequenced land release and coordinated infrastructure provision, transport options and active transport, connectivity between strategic economic and service provision sites, and the diversification and housing and job opportunities. Although these are 'in principle' improvements, the plan largely misses the opportunity to:

- articulate a vision for what a low carbon integrated economy-society-environment can look like and
- suggest and support concrete opportunities for transition towards lower carbon, socially inclusive urban futures.

One productive way the plan could address this is by demonstrating initiatives that can enable transition and **highlight opportunities in Hunter City where these transitions can be progressed.** This includes identifying how state and local government planning frameworks can work collaboratively to support and enable transitions, including by leveraging private and community sector initiatives. Transition opportunities, largely absent from the plan, include strategies to address:

- **Retrofitting of existing urban landscapes** by facilitating upgrades to the existing urban built environment (commercial and residential) to address energy efficiency, waste generation and resource use. A UK report by Arup and the Institute for Sustainability (2013) explores approaches to what they call "community retrofit" which incorporates "the retrofit of all community infrastructure: housing, transport and social infrastructure, lighting, heating, green spaces" (p. 14). They identify three different

funding models that are currently in use in the UK based on public sector-led, community-led and market-based approaches. However it is noteworthy that the report finds that no matter which approach is used "**The public sector needs to act as first-mover in promoting and implementing housing retrofit schemes**" (p. 10). Examples where this is taking place include Philadelphia, where the City had a target of retrofitting 15 per cent of housing stock with insulation, air sealing, and cool roofs between 2008 and 2015 (City of Philadelphia, 2015). Although this target was not achieved the City nevertheless retrofitted over 16,000 homes.

- **Initiatives to promote 'smart' and sustainable development** by integrating social and technological infrastructures that will support sustainable urban and economic growth. The Amsterdam Smart City initiative is one example of this. It involves businesses, residents, the Amsterdam Metropolitan Area municipality and knowledge institutions "to suggest and apply innovative ideas and solutions for urban issues" (http://amsterdamsmartcity.com/). To date 99 innovations have been institgated.

CONCLUSION

In sum, the *Draft Hunter Regional Plan* and the *Draft Plan for Growing Hunter City* provide an important roadmap for future directions for the region. We support most of the directions that have been put forward; however we believe that bolder steps could be taken to envision a region that leads the types of transformations needed in the 21st century.

Summary of Recommendations

(1) Plan for Indigenous Hunter City
· Recognition of the region's urban Indigenous communities in the *Draft Plan for Growing Hunter City*.
(2) Reflect a climate changing environment
· Fully consider the impacts of projected climate changes and the associated risks.
(3) Capitalise on new and renewable energy directions
· Fully consider opportunities to ready the region for a new energy future and to play a lead role in demonstrating strategies for transitioning to this future. · Identify areas suitable for the development of large-scale renewable energy capture and storage. · Acknowledge shifts in the development industry and identifies possibilities for 'off grid' greenfield and infill development in the Hunter.
(4) Diversify the economy
· Fully consider the potential for diversifying the economy by including the range of work activities that people participate in and that can be harnessed for novel economic initiatives.
(5) Actively support the provision of diverse housing
· Fully consider the state government actions that will be needed to ensure that the region's housing needs are met. · Recognise the contribution and role of community housing organisations in providing affordable housing. · Consider the cooperative relationships that are needed to ensure an adequate and appropriate supply of student housing.
(6) Envision the future city
· Identify clear limits to urban expansion in the *Draft Plan for Growing Hunter City*.
· Identify the means for monitoring the rate and impact of infill development in Hunter City.
· Articulate opportunities to transition Hunter City towards a low carbon future.

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