



31 July 2018

Transport and Public Works Committee

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## **Submission Inquiry into Transport Technology**

The Southern Downs Regional Council welcomes the opportunity to make a submission to the Transport and Public Works Committee which has resolved to undertake *an Inquiry into Transport Technology—the challenges and opportunities which technology will bring to the transport sector in coming years*.

Southern Downs Regional Council notes that the terms of reference are as follows:

- identifying trends and changes in fuel type usage in the sectors of personal transport, freight transport and public transport, such as the increasing uptake of hybrid and electric vehicles
- examining the readiness of the transport network for increasing electrification of vehicles in coming years
- identifying other emerging technological factors which will impact on transport networks into the future, such as driver aid technology and 'driverless car' technologies
- examining how technology is affecting employment arrangements in the transport industry, particularly in the food delivery area.

Recently, Southern Downs Regional Council approved a large scale solar farm that will be operated by the University of Queensland. This is one of a number of solar farms that have either been approved or are planned for the Southern Downs Region. It is envisaged that the project is expected to generate a range of significant benefits for the Southern Downs, including jobs, educational opportunities and investment in the region.

The 150ha solar farm will be constructed at Sladevale near Gleasons, Jensens, Robinson and Freestone Roads, and will generate about 160,000 megawatt hours of clean energy (MWh) each year, enough to power 27,000 average homes. Construction is planned to start by the end of 2018, directly creating more than 100 jobs during construction and several ongoing employment opportunities.

As part of a Memorandum of Understanding between Southern Downs Regional Council and the University of Queensland there are a number of opportunities that will support the use of electric vehicles. The Memorandum states that the parties will seek the,

- *Development of visitor information facilities on the site, as well as the undertaking of regular guided tours of the facility.*
- *Establishment and operation of electric vehicle (EV) charging infrastructure on or nearby to the site, with the facilities being free to use for the general public.*



- *The possible supply to SDRC of clean energy from the project at a competitive price to power Council's facilities and to help reduce Council's operating costs.*
- *Jointly create an annual scholarship program to encourage high achieving students from the Southern Downs Municipal Region to undertake studies in an energy or engineering related field at UQ.*
- *Consider the undertaking of joint research that that may lead to innovation in the use of renewable energy for activities associated with local government.*
- *Consider the provision of support for funding applications that would be of benefit to each of the parties.*

Southern Downs Regional Council believes that the objectives outlined in the Memorandum of Understanding could contribute to the trends and changes in fuel type usage in the sectors of personal transport, freight transport and public transport, such as the increasing uptake of hybrid and electric vehicles, as well as examining the readiness of the transport network for increasing electrification of vehicles in coming years. Council believes that it would be appropriate for the State Government to support additional research in these areas using the solar farm and the expertise of the University of Queensland and the potential practical application of innovation through Council's light and heavy fleet. It is also noted that Warwick's Morgan Park Raceway offers world class infrastructure for the testing of vehicles.

The Southern Downs Regional Council supports the further development of infrastructure to allow for the charging of electric vehicles along key transport routes and would like to work with the Queensland Government in encouraging the uptake of Electric Vehicles in Australia and the continual development of the Queensland Electric Super Highway, which will run through the Region. Council has already been briefed on this exciting opportunity and is considering how it can best leverage economic development options and capture additional tourism expenditure. The tourism sector in the region accounts for approximately 6% of the economy. The region is a recognised short-break destination for South East Queensland, particularly during the colder months. Opportunities exist for the region through the attraction of more visitors and events to the region. The Region also accommodates those travelling from Melbourne to Brisbane / Gold Coast and it is important to continually develop product and infrastructure that will cause these travellers to stop and contribute to the local economy.

Council recognises that communities that adapt quickly to this new technology will have the potential to leverage additional economic benefits from increased visitation from tourists, who recognise the importance of strategically located charging stations that are linked to renewable energy facilities.

In addition, the Southern Downs Regional Council believes that renewable energy facilities located in the Region will attract start-up businesses, new forms of commerce and entrepreneur activities, as well as offering the opportunity for more retail expenditure as people wait for their vehicles to be charged. Council believes that in the longer term this retail expenditure may have the potential to exceed the income gained from expenditure on energy. Potentially, Council in partnership with local businesses for example explore the opportunity to offer customers free charging, when they can demonstrate spending of over '\$x' amount in the central business district. Some customers in the United States are currently able to operate their Electric Vehicles totally free of charge, by utilizing free charging points and by discounts offered by local businesses. This may be an opportunity that needs to be further explored in the future.





Within the Southern Downs and beyond, Warwick is recognised as a transport and logistics centre. Council believes it has the capacity to become a pilot site for larger scale electric powered freight transport to demonstrate new technologies. Transport, Postal and Warehousing is the region's 7th largest employer and 5th largest contributor to economic output. The Southern Downs is well located on the crossroads of the New England and Cunningham Highways; it is two hours from Brisbane and one hour from Toowoomba Wellcamp Airport. There is an existing support industry for transport and logistics in the region.

In the near future Council will also give consideration to changes in both its light and heavy fleet to access hybrid and electric vehicles, thereby lowering operating costs and reducing costs to ratepayers.

Council is already seeking electric car and battery manufacturers to consider the Southern Downs as a location for these industries to develop and thrive. Council has the opportunity to work with local agricultural businesses as both John Deere and Caterpillar are currently manufacturing electric tractors and earthmoving equipment. The electric vehicle application to the agricultural industry in Australia still has so much growth and the possibilities are endless for farmers, noting that agriculture is the major contributor to the Southern Downs local economy.

Agriculture, Forestry and Fishing is the region's primary industry across employment, exports, industry growth and economic value. It employs 17.4% of the workforce and accounts for 22.5% of the region's economic turnover. The sector has many industry-leading operators located in the region and accounts for almost half of the value of the region's exports. Southern Downs is well positioned to supply increased demand for agricultural produce with capacity to expand. Furthermore, there is strong growth in demand for higher value food products to come from the growing and middle and upper class in Asia. Premium foods grown in the Southern Downs, such as meats and fruits, can expect increased demand over the longer term, domestically and internationally.

It is noted that in 2012 the Illinois Caterpillar factory in the United States sold their 500<sup>th</sup> D7E dozer. It is estimated that customers using the D7E have saved 5.3 million litres of diesel to date. John Deere released its first electric high-power tractor in 2016. The company says a full battery charge lasts for approximately four hours of normal use and requires three hours of charging time. The lifespan of the battery is approximately 3100 charge cycles. It is likely technology will improve the duration of the battery power in the near future creating more opportunities for the agricultural sector.

In the future Council may go down the path of establishing a driver education facility for young people and it may be that many of the vehicles in this facility could be electric vehicles.

Southern Downs Regional Council would be interested to explore pilot programs that relate to public transport, especially in assisting residents to commute between the principal population centres of the Southern Downs to the smaller villages and hamlets of the area. If social isolation or access to employment can be overcome by cost effective sustainable transport then this is an option that requires further investigation. Council believes there is a genuine opportunity to see how affordable public transport can be implemented in areas experiencing social isolation.

Potentially another avenue for exploration may be the use of solar passenger trains on existing rail infrastructure to improve connectivity between small towns, villages and hamlets to allow people to have access to medical, retail and recreational facilities.

The Southern Downs Regional Council welcomes future developments into renewable energy and will look at further applications for solar panels on top of civic facilities and the potential to follow Lismore City Council, who have installed floating solar panels on their waste water ponds.

At present Southern Downs Regional Council is involved with a Maturing the Infrastructure Pipeline Project, which involves Strategic Assessment of Service Requirement for renewable energy projects including hydropower, within the Southern Downs Region. The outcomes of this Assessment will inform Council as to the next steps that are to be considered in the development of renewable energy options in the future.





Therefore, with regard to identifying trends and changes in fuel type usage in the sectors of personal transport, freight transport and public transport, such as the increasing uptake of hybrid and electric vehicles, Southern Downs Regional Council believes that through its existing relationship with the University of Queensland and national recognition as a freight and distribution centre, it is well positioned to become a major destination for research and development in the renewable energy transport sector.

In relation to the readiness of the transport network for increasing electrification of vehicles in coming years, Southern Downs Regional Council submits that with the impending construction of the University of Queensland solar farm and the high number of visitors to the municipality, the Southern Downs is an ideal location to trial charging stations and ancillary infrastructure for Electric Vehicles, whether they be light or heavy fleet.

Furthermore, it is submitted that the Southern Downs region could potentially provide suitable environment for vehicle testing and driverless technology research. It is noted that there are already businesses on the Southern Downs producing technology for driverless vehicles.

Finally, given the large number of transport based industries, based in the Southern Downs (Wickhams, Lindsay Brothers, Hardy's Haulage, to name a few) Council believes that there would be the opportunity to examine how technology is affecting employment arrangements in the transport industry, particularly in the food delivery area utilising practical data and demonstrated experience.

It is important that Transport and Main Roads start planning to accommodate electric vehicles into their regional road strategies and the planning of their long term freight networks.

Southern Downs Regional Council thanks the Transport and Public Works Committee for the opportunity to make a submission to the *Inquiry into Transport Technology*.

Yours faithfully

A handwritten signature in black ink, appearing to read "DK", is written over a faint, larger version of the same signature. Below the signature, the name "David Keenan" and title "Chief Executive Officer" are printed in a black, sans-serif font.

David Keenan  
Chief Executive Officer