

## **RECHARGE ILLAWARRA – HYDROGEN**

### **A PLAN TO DEVELOP A HYDROGEN INDUSTRY IN THE ILLAWARRA**

#### **1. “Recharge Illawarra – Hydrogen” project coordination**

**LEAD:** *Recharge Illawarra*

**PARTNER:** *University of Wollongong*

**Funding:** *\$1 million (over 4 years)*

“Recharge Illawarra – Hydrogen” would be a project-based approach to the coordination of activities associated with the development and growth of a hydrogen industry in the Illawarra.

This proposal is for funding to employ a project co-ordinator who would from a governance perspective would be accountable to the Recharge Illawarra board. The project co-ordinator would be responsible for the co-ordination of project activities, growth of the industry network, community awareness and reporting to funding organisations on progress.

The project co-ordinator would also be tasked with the finalisation of a Hydrogen Roadmap for the Illawarra which would be used to guide future activities of “Recharge Illawarra – Hydrogen”. A preliminary draft of the Hydrogen Roadmap for the Illawarra is attached.

“Recharge Illawarra – Hydrogen” would also be the repository for experiences with regulatory constraints and possible solutions to dealing with them as part of the substantial regulatory development framework a hydrogen industry will require.

#### **2. Hydrogen for transport trial**

**LEAD:** *Coregas*

**PARTNERS:** *Premier Buses and Hyzon Motors*

**Funding:** *Bus trial - \$1.5 million*  
*Truck trial – details being finalised*  
*Phase 2 – currently being scoped*

Coregas, Premier Buses, Hyzon Motors and other partners to develop and implement a hydrogen bus and truck transport trial.

This would utilise the hydrogen refuelling station to be developed in Port Kembla at the Coregas facility with funding support of the Port Kembla Community Infrastructure Fund.

The refuelling station could service up to 10 vehicles per day. Coregas is purchasing two prime movers for its transport fleet to be deployed early 2022. However, the

project announcement created an interest in zero emission transport from local transport companies.

The Coregas refuelling station could provide 350 bar hydrogen for third party trucks and buses (e.g. Gong Shuttle). As a relatively new technology, hydrogen trucks and buses are still produced in low volume and as such pricing is relatively high versus their traditional alternatives. The NSW Government can provide support to bridge the gap between the price of a diesel truck or bus and new hydrogen fuel cell technology which would stimulate uptake of these vehicles.

It is proposed that the bus project uses a locally manufactured bus.

This project would be of strategic importance as a first step in addressing emissions in the heavy-duty vehicle sector, with around 20 per cent of the national greenhouse gas inventory from transport. There are more than 125,000 heavy rigid and articulated trucks registered in NSW with over 15 per cent of daily vehicle movements in the Illawarra being heavy vehicles.

The above represents phase 1 of the project.

The parties are also looking at the longer-term opportunity to develop a large-scale public refuelling hub within Port Kembla industrial complex for 50 to 100 heavy-duty hydrogen trucks (phase 2).

This phase of the project would include a new source of renewable hydrogen to complement existing hydrogen supply, hydrogen pipeline and refuelling station with five dispensers at the first stage. Consultations with trucking companies at Port Kembla will commence from June 2021 to determine the level of interest and commitment to integrate hydrogen trucks in volume into local fleets.

The estimated cost of this project and any associated contribution would be informed by the work of the industry consultation and experience in developing the approved refuelling station.

The trial could be expanded to include hydrogen taxis in conjunction with Illawarra Taxi Network who have expressed an interest in exploring this as an option.

### **3. Skills and Training Development**

**LEAD:** *South Coast Labour Council*

**PARTNERS:** *TAFE, University of Wollongong, i3Net and Business Illawarra*

**Funding of:** *\$500,000 – VET (over 2 years)*  
*\$500,000 - Tertiary (over 2 years)*

The development and growth of the hydrogen and related industries in the Illawarra will require a significant investment in the development and application of skills and training initiatives to enable these industries to be established and to extract the maximum economic and social benefit for our community.

There are already authoritative studies internationally through the ILO and European Commission identifying skills and pilot training initiatives to consider and as a more local reference the UTS studies by The Centre for Sustainable Futures (Dr Chris Briggs et al) have identified skills and training implications in this space.

This project will seek to localise a skills and training analysis and report on requirements for the projects referred to in this cluster and for the emerging hydrogen and related renewable industries.

Specifically, this project will focus on the following trades through TAFE:

1. Electrical
2. Mechanical/automotive
3. Steel fabrication
4. Industrial Plumbing and Gas-fitting

The second stream of this project would focus on course development particularly in the Engineering Faculty at the University to enable the development of modules/subjects directly relevant to these emerging industries as part of the Engineering courses.

### **4. Illawarra Energy Futures Communities**

**LEAD:** *University of Wollongong, Bluescope and i3Net*

**Funding:** *\$10 million (over 5 years)*

This would be a range of projects associated with Illawarra Energy Futures Communities (attached) with details to be developed in consultation and aligned with the priorities of the NSW Government.

It would include the development of living laboratory comprising of a range of residential, commercial and social centres that would enable the development of demonstration facilities with a view to scale-up and commercialisation.

This would also include strong engagement with the industry and businesses through i3net and Business Illawarra and involve community engagement.

Sub-projects could include:

- Hydrogen pipeline research (Future Fuels CRC)
- Electricity storage research
- Sustainable buildings and retrofitting
- Development of low pressure hydrogen trials
- Hydrogen from methane
- Cleaner steel production
- Business adaptation, adoption and scale-up (existing businesses and industries)
- Development of portable production facilities aimed at construction industry
- Hydrogen embrittlement and the gas supply system

## **5. Illawarra land use planning**

**LEAD:**        *Wollongong City Council*

**Funding:**    *\$500,000 (over 2 years)*

Wollongong City Council to lead project on identifying suitable land and, in conjunction with the Department of Planning, Industry and Environment, develop speedy approach to land use approvals that would identify sites for hydrogen production, transport, storage and use in the local government area.

This would include a review of environmental and other regulations that would need to be developed or modified to allow for the approval of hydrogen production, supply and use.

This could involve consultation and discussions with the neighbouring Shellharbour Council as required in order to have a consistent approach across local government areas.

## **6. Supply Chain Development**

**LEADS:**        *Business Illawarra and i3Net*

**Funding:**    *\$1 million (over 4 years)*

Project to focus on involving and equipping Illawarra-based businesses to be aware of the local hydrogen supply chain.

This would focus on local manufacturers and fabricators. The development of local content and capacity to be part of Illawarra hydrogen ecosystem and in turn help to grow the market for suppliers and users as appropriate in the ultimate objective.

This project would also be connected with the developments being undertaken by Energy Australian and Australian Industrial Energy in the Illawarra.

**Organisations involved in developing this plan:**

Paul Scully MP, Member for Wollongong  
South Coast Labour Council (including relevant affiliate unions)  
University of Wollongong  
BlueScope  
CoreGas  
Illawarra Innovative Industry Network  
Business Illawarra  
TAFE Teachers Association  
Wollongong City Council  
Premier Illawarra Buses  
Hyzon Motors