

**Submission
No 27**

INQUIRY INTO DEVELOPMENT OF A HYDROGEN INDUSTRY IN NEW SOUTH WALES

Organisation: Black Pages Business Alliance et al.

Date Received: 26 February 2021

Date 21 February 2021

Email Submission to Attention of:

NSW Parliament

Legislative Council

Standing Committee on State Development

Committee Name: Development of a hydrogen industry in New South Wales

Parliament House

Macquarie Street

SYDNEY NSW 2000

RE: Submission to Development of a hydrogen industry in NSW

1.0 INTRODUCTION

Sydney based Indigenous business, Black Pages, together with our business alliance partners, Globo Hydro Power Limited, and the Institute of Automotive Mechanical Engineers (IAME), would like to submit this submission to the NSW Parliament inquiry on Development of a hydrogen industry in New South Wales, which is inquiring into current state of, and opportunities for, the development of a hydrogen industry in New South Wales, with this Black Pages submission having a particular reference or focus to the following Terms of Reference points of the inquiry:

No 5: The infrastructure, technology, skills, workforce capabilities and other things needed to realise the economic opportunities of hydrogen as and when it becomes commercial in different sectors of the economy;

No 6: The actions needed of the public and private sectors, to support the development of a hydrogen industry in NSW and to realise the associated economic opportunities, including actions to manage any safety risks in the hydrogen industry;

No 7: The potential for jobs in New South Wales, both directly in the hydrogen industry and in other industries powered by hydrogen; and

No 8: Any other pertinent matters the Committee wishes to draw to the Government's attention in this regard.

Further discussion on the abovementioned key elements from the inquiry Terms of Reference are further detailed in the following sections below.

2.0 WHO ARE WE & WHAT WE PLAN TO ACHIEVE

As shown in the below diagram, the Black Pages business alliance partners for this submission as displayed in Diagram 1 below, includes the following NSW based business entities:

- Black Pages Pty Limited;
- Globo Hydro Power Limited (GHPL); and the
- Institute of Automotive Mechanical Engineers (IAME).

Through this established collaborative business alliance the plan of the Black Pages business alliance submission to the inquiry is to demonstrate the key role the business alliance is currently playing in advancing the emerging new Hydrogen Economy in NSW through the following three Key Strategies:

1. Achieving sales of our Australian invented and patented emissions reduction “green” technology hydrogen gas product known as Globo Hydro Power (**GHP™**) targeting the transport and related industries;
2. Provision of associated accredited skills training development and education delivery on the emerging hydrogen economy in NSW through the IAME, to automotive and related industries in Local Government structures across NSW, including creation of proposed Local Government/Shire “Advancing Hydrogen Cluster or Hub groups across NSW, while supporting urban, regional and smaller rural/remote hydrogen industry capacity building, and creation of significant numbers of new jobs and employment pathways in the emerging new “green” NSW hydrogen economy over the next 3 to 5 years (please note that our Black Pages business alliance group has already been involved in establishing an “Advancing Hydrogen Cluster Group’ model in the Sutherland Shire); and
3. Supporting the NSW Government and industry investments in reducing emissions target levels from fossil fuel usage from automotive vehicles, industry machinery and equipment including diesel generators.

The GHPL company owned and patented, Globo Hydrogen Power (**GHP™**) green technology product, is an industry-leading fuel enhancement system currently being sold in the NSW marketplace, and which can be installed into trucks, buses, locomotive, mining and agricultural equipment and power generators to upgrade traditional petrol and diesel engines into cost-saving, emissions-reducing, hydrogen hybrid engines.

An Australian invention, developed by Sydney-based *Globo Hydro Power*, this unique and innovative system addresses three major challenges facing industry today – pollution, cost and compliance, along with being a:

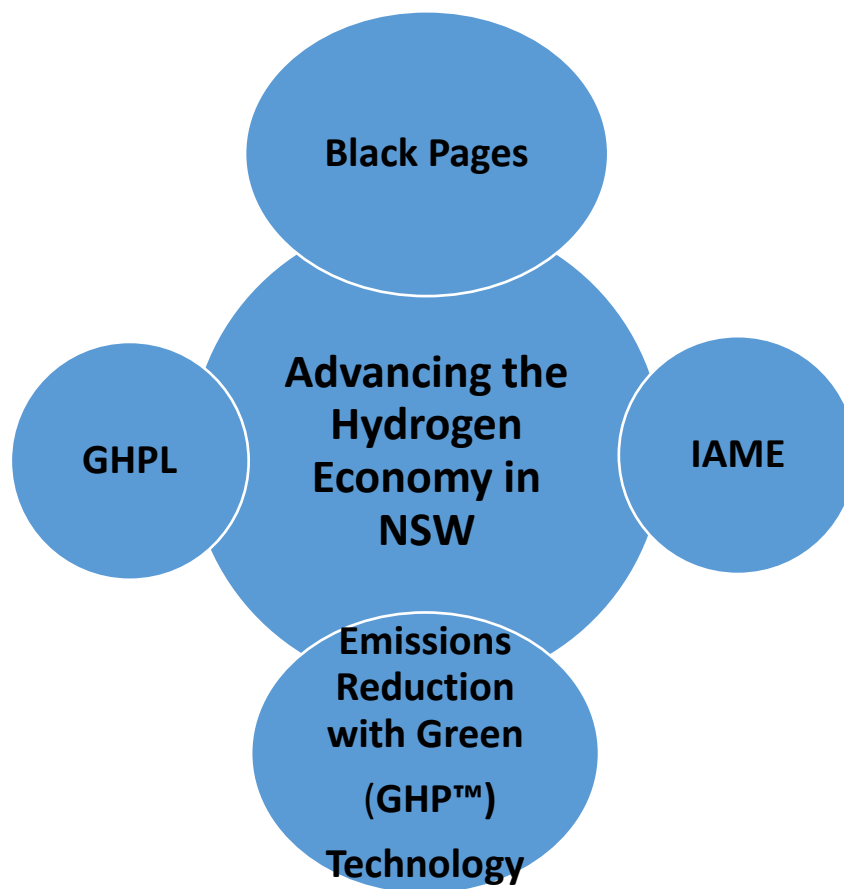
Green technology product – with the GHP™ process burning fossil fuels more completely leaving less emissions emitted via the exhaust system, while also achieving up to 45% reduction in negative greenhouse gas emissions;

Economic to the consumer – in realising up to 40% fuel savings for increased profitability, improved productivity and greater competitiveness in a highly competitive sector; and it is

Safe: Hydrogen is one of the safest fuels available. Hydrogen is scientifically classified as more stable and less toxic than fossil fuels such as petrol, LPG and diesel. Mild steel cylinders are used which are proven resistant to serious impact.

The **GHP™** patented product is the only green hydrogen gas technology of it's type in the world, with no known competitors.

Diagram 1:



3.0 HOW WE PLAN TO ACHIEVE OUR STATED KEY STRATEGIES

The abovementioned three (3) key strategies will be achieved through the collaborative work and respective expertise and contributions of our established business alliance partners, GHPL; IAME and Black Pages, and as noted below in Diagram 2, and in the summary associated descriptions that each business alliance partner will each be contributing to specified requirements and deliverables around:

- the **GHP™** product compliance, standards and quality assurance processes that need to be established;

- in the provision of nationally accredited new Hydrogen Industry Skills training and capacity building for NSW automotive businesses related industries and local communities; and
- in exploring pathways to vocational training and employment opportunities in the new emerging NSW Hydrogen Industry economy of the future:

Diagram 2:



GHPL: As the inventor and owner of the patented commercialised GHP™ emissions reduction technology product, GHPL has responsibility for all relevant government and industry compliance and regulations; the GHP™ product insurance; GHP™ product hydrogen gas supply; and GHP™ product installation skills training standards for licenced motor mechanics, Trades Assistant GHP™ Product Installers; and GHP™ Product, Inspector roles to oversee the GHP™ technology product quality assurance.

IAME: Established in 1936, the IAME is a membership organisation for automotive industry related business, including motor mechanics, which has a NSW wide (and National network) of automotive related business membership, including automotive mechanic business networks, that the business alliance can strategically tap into for development and delivery of required and accredited hydrogen gas compliance training. The IAME is also a Registered Training Organisation (RTO), with whom can have accredited GHP™ kit installation training developed and delivered for licenced Motor Mechanics; and the new Hydrogen Gas, Trades Assistant Installers positions, and the new Inspector roles for the GHP™ hydrogen gas product kit. With the available hydrogen gas installation training capacity available, it will also support GHP™ sales going forward, along with provision of associated industry and

community education events through NSW Local Government structures, on advancing the emerging new Hydrogen Economy in NSW. Refer to Section 4 below for more details of the proposed Accredited Training Provision.

BLACK PAGES: A Sydney based specialist and experienced Indigenous owned business advisory, vocational training and employment provider since 1999, Black Pages will facilitate the creation of new Hydrogen Industry Jobs in NSW, through development of associated workplace vocational training and employment opportunities, which will include targeting marginalised or disadvantaged job seekers for available vocational training and employment opportunities in the new emerging hydrogen economy in NSW. Black Pages is also a certified NSW Indigenous business through Supply Nation for NSW government procurement purposes.

To support this, it will include amongst other things working with targeted AIME automotive industry business members in key urban, regional and rural/remote areas across NSW, regarding the delivery of nationally accredited industry training and the placement of job seekers into available industry jobs across the automotive, heavy vehicle transport, agricultural, mining and construction industries in particular. The range of jobs will include:

- Automotive Mechanics, with an added GHP™ Hydrogen Gas installation certification qualification; and new hydrogen industry jobs and employment in new roles of:
- Mechanical Trades Assistant, GHP™ Installation; and
- Product Inspector GHP™ Compliance roles.

It is estimated that over the next 3 years, as projected sales increase for the GHP™ emissions reduction technology product, and formal accredited GHP™ hydrogen gas training programs are delivered across NSW through the IAME, that there could potentially be an additional 500 to 1000 or more direct and indirect new jobs created in NSW in the new hydrogen economy, as a result of the successful commercialisation of the GHP™ green technology emissions reduction product into the NSW economy.

The availability of significant numbers of new jobs and associated employment opportunities related to the GHP™ product roll-out into NSW marketplace, will also provide an opportunity for targeting employment opportunities for a range of jobseekers, including for people with a disability, women in trades, Indigenous jobseekers, and mature age women and men over 50 years of age who often find it difficult to secure employment as a mature age worker. It is fair to say, that NSW is blessed to have significant numbers of mature aged men and women with significant industry trade and related technical skills and knowledge who are currently under-employed (with many also being impacted by Covid 19 in recent times), and many are seeking casual, part-time and full-time employment opportunities, and still have much to offer the NSW economy and their local communities in terms of bringing valuable technical training and product knowledge, management, supervision and mentoring skills to contribute to the new emerging hydrogen economy across NSW in the coming years.

The diverse range of jobseekers from school to work trainees and mature aged people, would be ideal and suitable candidates for various roles in the emerging NSW hydrogen

economy, especially in new roles of Trades Assistant, GHP™ Installation, and the new Inspector GHP™ Compliance & Quality Assurance roles for the GHP™ product. In addition, the emergence of the new hydrogen economy in NSW will see increased employment opportunities for workplace mentors, administrative and warehousing logistics roles just to name a few.

Nationally, the new jobs creation figure could reach up to 5,000 or more new positions over the next 3 to 5 years, in the emerging national hydrogen economy as a result of the Australian invented GHP™ green technology emissions reduction product.

4.0 THE REQUIRED ACCREDITED TRAINING PROVISION

With the commercialisation and launch of the GHP product into the Australian marketplace in 2020, there is now an urgent requirement for NSW government support and funding for the provision of the following four (4) levels of accredited skills based training including:

- 1. Introduction to Hydrogen Safety and Handling Training Program;**
- 2. GHP™ Kit Installation Training – an Upskilling Training Program for already Licensed Mechanics;**
- 3. GHP™ Kit Installation Inspection Training – for Product inspectors; and**
- 4. GHP™ Kit Installation Training – a Skills Based Training Program for Mechanical Assistants.**

Each of the abovementioned four (4) areas of required accredited training will require government support and investment in curriculum design and scoping out of developed training for national accreditation and delivery. For example, for the proposed Introductory Hydrogen Training Program, the subject content or topic sessions will include:

- ✓ History of Hydrogen

- ✓ Industry Terminology

- ✓ Industry Authorities

- ✓ Types of Hydrogen via Manufacturing Methods
 - Grey
 - Blue
 - Green

- ✓ Gaseous Hydrogen Characteristics and MSDS

- ✓ Liquid Hydrogen Characteristics and MSDS

- ✓ Gases Hydrogen Product Usage
- ✓ Liquid Hydrogen Product Usage
- ✓ Hydrogen Storage Regulations
- ✓ Advancing the Hydrogen Industry

For the GHP™ product, the abovementioned identified four (4) hydrogen gas training program needs are now required to support provision of associated vocational training and employment opportunities, which may include amongst other things, developing Traineeships opportunities in the emerging hydrogen economy in NSW, along with offering employers associated wage subsidy opportunities to further facilitate employment take-up, while increasing industry demand for accredited and relevant hydrogen industry training in NSW for employees.

5.0 THE INDICATIVE THREE (3) YEAR FUNDING BUDGET REQUIRED

Given the proposed Black Pages business alliance partners collective work contributions to the proposed three (3) pronged approach comprising **GHP™ Compliance & Standards; Accredited Industry Skills Training; and the creation of hydrogen industry training and jobs**, the following indicative three (3) year budget in Table 1 below is proposed for NSW Government industry funding investment for the Black Pages business alliance funding investment:

TABLE 1: Indicative three (3) Year Funding Investment Budget:

INDICATIVE TIMELINE	FUNDING BUDGET REQUEST
Year 1: 2021 - 2022	\$900,000
Year 2: 2022 - 2023	\$600,000
Year 3: 2023 - 2024	\$300,000
TOTAL FUNDING INVESTMENT REQUEST:	\$1,800,000

6.0 OTHER MATTERS

Four (4) other pertinent matters that this submission wishes to draw attention to the inquiry for consideration, especially in regards to the innovative GHP™ emissions reduction technology product in the marketplace, and the wider emerging NSW hydrogen economy are:

- ❖ Export Opportunities;

- ❖ Employer wage subsidy support for small to medium and large size companies.
- ❖ Industrial Relations requirements and support for NSW businesses and employees working in the emerging NSW hydrogen economy; and
- ❖ Hydrogen Industry Research & Development (R&D) capability.

Export Opportunities: The GHP™ patented product has enormous export potential as a new export opportunity for Australia and it's State economic development to many countries around the world in supporting global emissions reductions targets. Therefore, relevant NSW government support and advice is required to facilitate and navigate available GHP™ product export opportunities over the next 3 years in particular.

Employer wage subsidy support for small to medium and large companies: It has already been noted in the submission, that with the recent impact of COVID 19 on NSW Jobseekers and the NSW economy, and together with the availability of significant numbers of new jobs and associated employment opportunities emerging in the new NSW hydrogen economy and industry, that there is an urgent need for government Employer Wage subsidies for businesses to train and employ people, including providing associated on-the-job vocational training, and potential hydrogen industry traineeship opportunities, especially for the more vulnerable and/or long term job seekers. In addition, as sales and new hydrogen technology products and installations demands increase , such as for the GHP™ emissions technology product, it will likely see significant increase numbers of direct and indirect employment opportunities in a range of jobs to support a growing hydrogen economy in NSW over the next 3 to 5 years in particular. Therefore, it is crucial that consideration be given to planning for employer wage subsidy support, which will be crucial to hydrogen business and employment success and positive NSW economic outcomes going forward.

Industrial Relations Requirements and support for NSW businesses and employees working in the merging NSW Hydrogen economy: Given that the new NSW hydrogen economy will bring with it, new knowledge and skill requirements for a range of new jobs in an hydrogen economy, and to support businesses and employers, there is also an urgent need for government to work with employers and industry groups around discussions and advice on the associated and relevant industry awards and conditions in an emerging hydrogen economy, especially awards and conditions for newly created positions or jobs.

Hydrogen Industry Research & Development (R&D) Capability: NSW Government industry funding support and advice is required to help facilitate new R&D support and capability in enhancing the hydrogen industry technology and innovation applications, growth and sustainability into the future, both in Australia and globally.

7.0 SUMMARY

In summary, this submission to the inquiry on Development of a hydrogen industry in New South Wales, has outlined what we plan to achieve over the next 3 years through the sales and the installation of the innovative GHP™ emissions reduction technology, and the need

for government to now provide industry funding to support the development and delivery of associated industry based accredited skills-based training in the topic areas of:

- **Introduction to Hydrogen Safety and Handling Training Program;**
- **GHP™ Kit Installation Training – an Upskilling Training Program for already Licensed Mechanics;**
- **GHP™ Kit Installation Inspection Training – for Product inspectors; and**
- **GHP™ Kit Installation Training – a Skills Based Training Program for Mechanical Assistants.**

This submission to the inquiry has also raised other matters of interest for the GHP™ emissions reduction technology product around new Export potential for the GHP™ product, and other hydrogen based products, and for flow on benefits for the NSW economy; as well as calling on government support for ongoing R&D funding support for NSW businesses within the NSW hydrogen industry.

Other matters put forward in this submission for consideration of the inquiry include exploring the relevant Industrial Relations Requirements and support for NSW businesses and employees working in the emerging NSW Hydrogen economy; and the need for Employer wage subsidy support for small to medium and large companies to provide relevant vocational training and employment for jobseekers in the emerging hydrogen industry in NSW.

Forwarded for your consideration and further discussions.

Kind Regards

Paul Newman

Managing Director

Black Pages

Email:

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Post: