

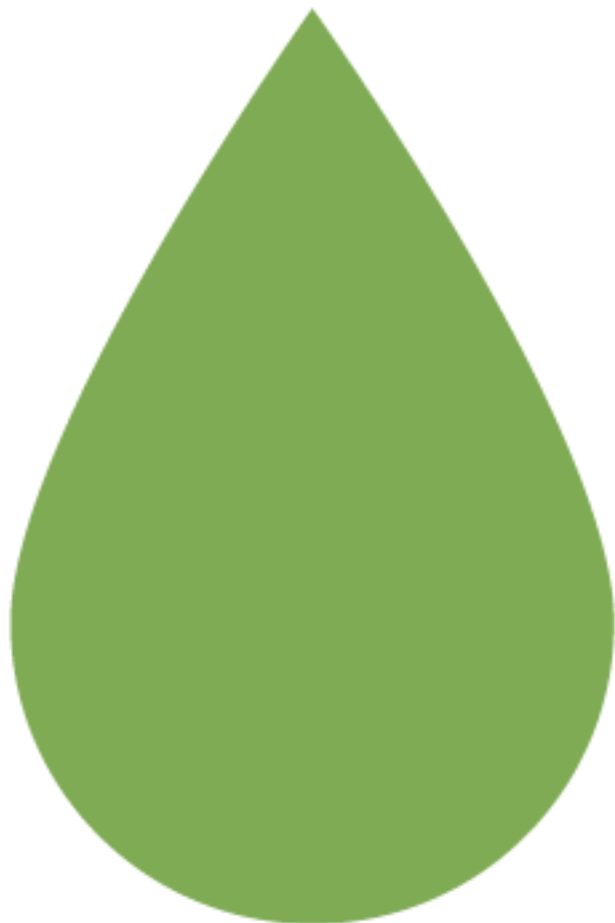


# Opportunities presented by the Green Economy – A NAMCOR Perspective

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Senior Manager: Sustainable Energies

[www.namcor.com.na](http://www.namcor.com.na)





# Hydrogen & Revolution 101

# What is Hydrogen?



1 IA <b>H</b> Hydrogen 1.008 1																	18 VIIIA <b>He</b> Helium 4.0026 2	
3 <b>Li</b> Lithium 6.94 3	4 IIA <b>Be</b> Beryllium 9.012 4																	10 <b>Ne</b> Neon 20.180 10
11 <b>Na</b> Sodium 22.98976928 11	12 IIA <b>Mg</b> Magnesium 24.305 12	13 IIIA <b>B</b> Boron 10.81 13	14 IVA <b>C</b> Carbon 12.011 14	15 VA <b>N</b> Nitrogen 14.007 15	16 VIA <b>O</b> Oxygen 15.999 16	17 VIIA <b>F</b> Fluorine 18.998 17	18 VIIIA <b>Ar</b> Argon 39.948 18											36 <b>Kr</b> Krypton 83.796 36
19 <b>K</b> Potassium 39.0983 19	20 IIA <b>Ca</b> Calcium 40.078 20	21 IIIB <b>Sc</b> Scandium 44.955908 21	22 IVB <b>Ti</b> Titanium 47.88 22	23 VB <b>V</b> Vanadium 50.9415 23	24 VIB <b>Cr</b> Chromium 51.9961 24	25 VIB <b>Mn</b> Manganese 54.938044 25	26 VIIIB <b>Fe</b> Iron 55.845 26	27 VIIIB <b>Co</b> Cobalt 58.933 27	28 VIIIB <b>Ni</b> Nickel 58.693 28	29 VIIIB <b>Cu</b> Copper 63.546 29	30 VIIIB <b>Zn</b> Zinc 65.38 30	31 IIIB <b>Ga</b> Gallium 69.723 31	32 IIIB <b>Ge</b> Germanium 72.630 32	33 IIIB <b>As</b> Arsenic 74.922 33	34 IIIB <b>Se</b> Selenium 78.971 34	35 IIIB <b>Br</b> Bromine 79.904 35	36 IIIB <b>Kr</b> Krypton 83.796 36	
37 <b>Rb</b> Rubidium 85.4678 37	38 IIA <b>Sr</b> Strontium 87.62 38	39 IIIB <b>Y</b> Yttrium 88.90584 39	40 IVB <b>Zr</b> Zirconium 91.224 40	41 VB <b>Nb</b> Niobium 92.90638 41	42 VIB <b>Mo</b> Molybdenum 95.95 42	43 VIB <b>Tc</b> Technetium (98) 98 43	44 VIIIB <b>Ru</b> Ruthenium 101.07 44	45 VIIIB <b>Rh</b> Rhodium 102.91 45	46 VIIIB <b>Pd</b> Palladium 106.42 46	47 VIIIB <b>Ag</b> Silver 107.87 47	48 VIIIB <b>Cd</b> Cadmium 112.41 48	49 IIIB <b>In</b> Indium 114.82 49	50 IIIB <b>Sn</b> Tin 118.71 50	51 IIIB <b>Sb</b> Antimony 121.76 51	52 IIIB <b>Te</b> Tellurium 127.60 52	53 IIIB <b>I</b> Iodine 126.905 53	54 IIIB <b>Xe</b> Xenon 131.29 54	
55 <b>Cs</b> Cesium 132.90545196 55	56 IIA <b>Ba</b> Barium 137.327 56	57-71 IIIB Lanthanides	72 IVB <b>Hf</b> Hafnium 178.49 72	73 VB <b>Ta</b> Tantalum 180.94788 73	74 VIB <b>W</b> Tungsten 183.84 74	75 VIB <b>Re</b> Rhenium 186.21 75	76 VIIIB <b>Os</b> Osmium 190.23 76	77 VIIIB <b>Ir</b> Iridium 192.22 77	78 VIIIB <b>Pt</b> Platinum 195.08 78	79 VIIIB <b>Au</b> Gold 196.97 79	80 VIIIB <b>Hg</b> Mercury 200.59 80	81 IIIB <b>Tl</b> Thallium 204.38 81	82 IIIB <b>Pb</b> Lead 207.2 82	83 IIIB <b>Bi</b> Bismuth 208.98 83	84 IIIB <b>Po</b> Polonium (209) 209 84	85 IIIB <b>At</b> Astatine (210) 210 85	86 IIIB <b>Rn</b> Radon (222) 222 86	
87 <b>Fr</b> Francium (223) 223 87	88 IIA <b>Ra</b> Radium (226) 226 88	89-103 IIIB Actinides	104 IVB <b>Rf</b> Rutherfordium (261) 261 104	105 VB <b>Db</b> Dubnium (262) 262 105	106 VIB <b>Sg</b> Seaborgium (263) 263 106	107 VIB <b>Bh</b> Bohrium (264) 264 107	108 VIIIB <b>Hs</b> Hassium (277) 277 108	109 VIIIB <b>Mt</b> Meitnerium (278) 278 109	110 VIIIB <b>Ds</b> Darmstadtium (285) 285 110	111 VIIIB <b>Rg</b> Roentgenium (288) 288 111	112 VIIIB <b>Cn</b> Copernicium (289) 289 112	113 IIIB <b>Nh</b> Nihonium (284) 284 113	114 IIIB <b>Fl</b> Flerovium (289) 289 114	115 IIIB <b>Mc</b> Moscovium (288) 288 115	116 IIIB <b>Lv</b> Livermorium (293) 293 116	117 IIIB <b>Ts</b> Tennessine (294) 294 117	118 IIIB <b>Og</b> Oganesson (294) 294 118	
57 <b>La</b> Lanthanum 138.905 57	58 <b>Ce</b> Cerium 140.12 58	59 <b>Pr</b> Praseodymium 140.90766 59	60 <b>Nd</b> Neodymium 144.24 60	61 <b>Pm</b> Promethium (145) 145 61	62 <b>Sm</b> Samarium 150.36 62	63 <b>Eu</b> Europium 151.964 63	64 <b>Gd</b> Gadolinium 157.25 64	65 <b>Tb</b> Terbium 158.925 65	66 <b>Dy</b> Dysprosium 162.50 66	67 <b>Ho</b> Holmium 164.930 67	68 <b>Er</b> Erbium 167.259 68	69 <b>Tm</b> Thulium 168.934 69	70 <b>Yb</b> Ytterbium 173.054 70	71 <b>Lu</b> Lutetium 174.967 71				

The hydrogen molecule (H<sub>2</sub>), which is sometimes called “dihydrogen”, is the oldest and simplest molecule in our Universe. It is found in every star, including the Sun, which draws its energy from the transformation of hydrogen into helium during a thermonuclear reaction. It is made up of two hydrogen atoms, which are the first two elements to have been formed more than 13 billion years ago.

Name: Hydrogen

Symbol: H

Number: 1

Chemical series: Non-metal

Group: 1

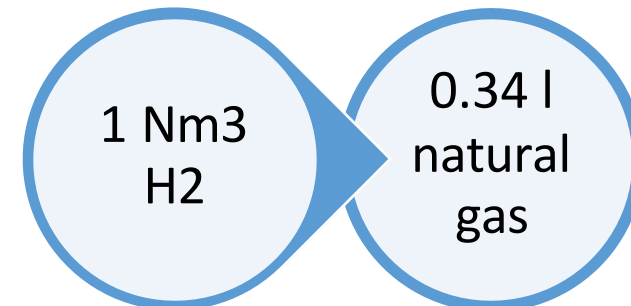
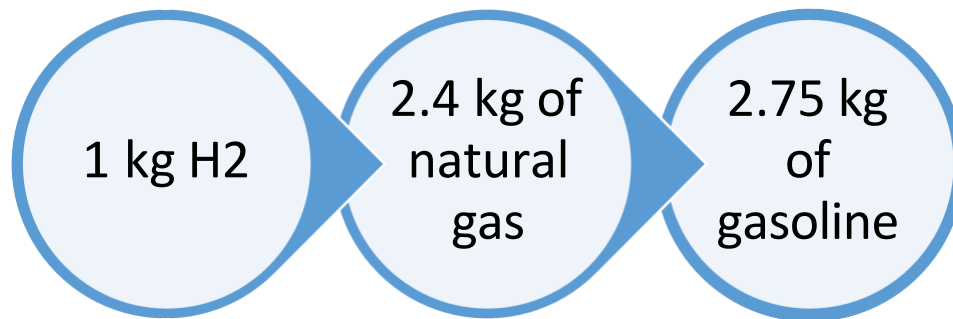
Period: 1

Block: s

# What is Hydrogen....?



- **Hydrogen (H) is the most abundant element in the universe.** On Earth is found in great quantities with other elements, such as water and hydrocarbons.
- **We typically refer hydrogen to the molecule H<sub>2</sub>,** which associates two atoms of hydrogen.
- **Hydrogen is available in different states depending on the temperature:**
  - **GAS:** room temperature
  - **LIQUID:** -252.87°C
  - **SOLID:** -259.14
- **Hydrogen has a high energy content by weight - 33.3 kWh/kg (LHV) (39.39 kWh/kg HHV), but it has a rather low energy density by volume.** The volumetric energy density of hydrogen is about one-third that of natural gas.



# How is Hydrogen Produced?

There are four main types of hydrogen production which use different energy source.

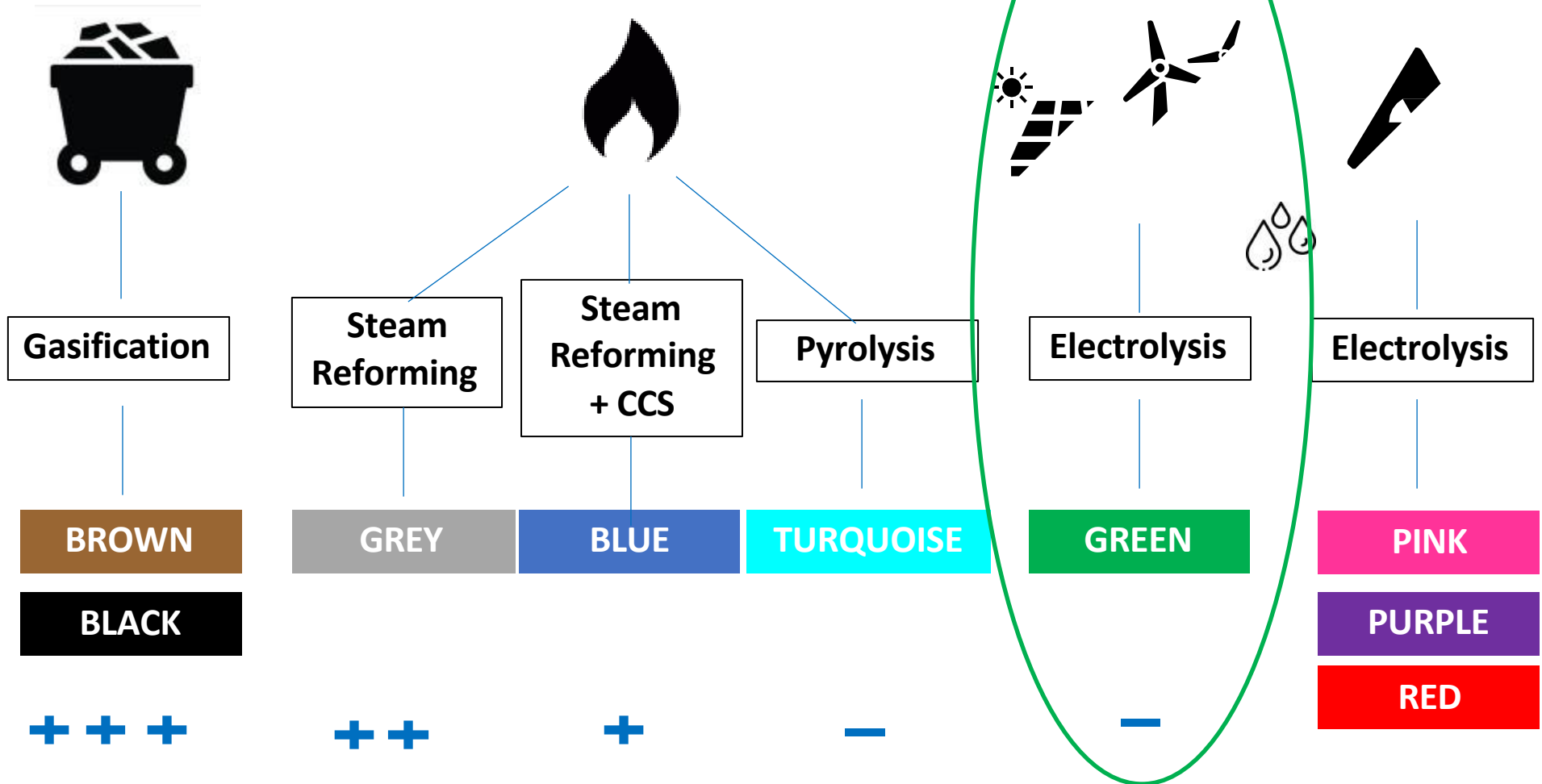


ENERGY SOURCE

PRODUCTION METHOD

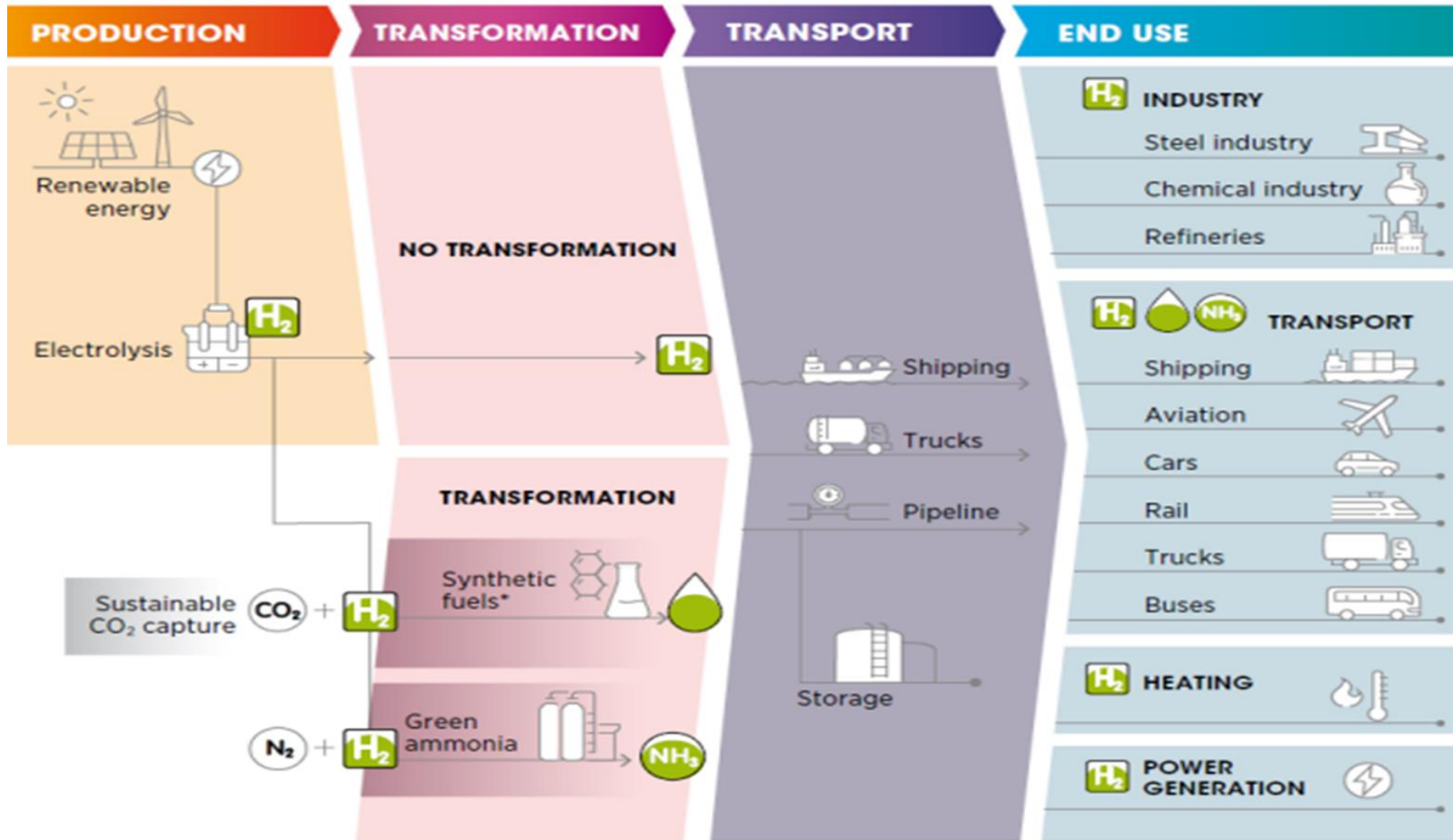
H2 COLOR

CO2 eq/kgH2



# Hydrogen 101:

## H2 EXISTENCE: STEAM METHANE REFORM = H2 + CO2



Source: (IRENA, 2020)

# ENERGY EVOLUTION & THE BIG QUESTION I



Can Oil and Gas Coexist with Hydrogen?



1

- Coal – Oil – Renewable Energy – Gh2

2

- Evolved over time, more than one source of energy exist over time
- H2 is not an energy source but a carrier, hence it cannot replace Oil & Gas

3

- Countries doing GH2 but still have OIL & GAS
- Saudi Arabia, Oman, Australia, Norway - All want to produce GH2 but have oil & gas and they will continue to produce oil & gas

4

- Oman –active plans to transition from oil & gas to GH2 and Ammonia
- Both industries are available at the same time in Namibia

# ENERGY EVOLUTION & THE BIG QUESTION 2

## How do you make the most of both?



Critical commodities (Oil - tried and tested but at sunset, GH2 - not fully tried and tested but at sunrise).



We can move fast to make the most of both and manage the economies depending on the demand



What are the Key priorities for the country? Energy security, Energy Efficiency, Energy poverty, decarbonization, energy transition or climate change

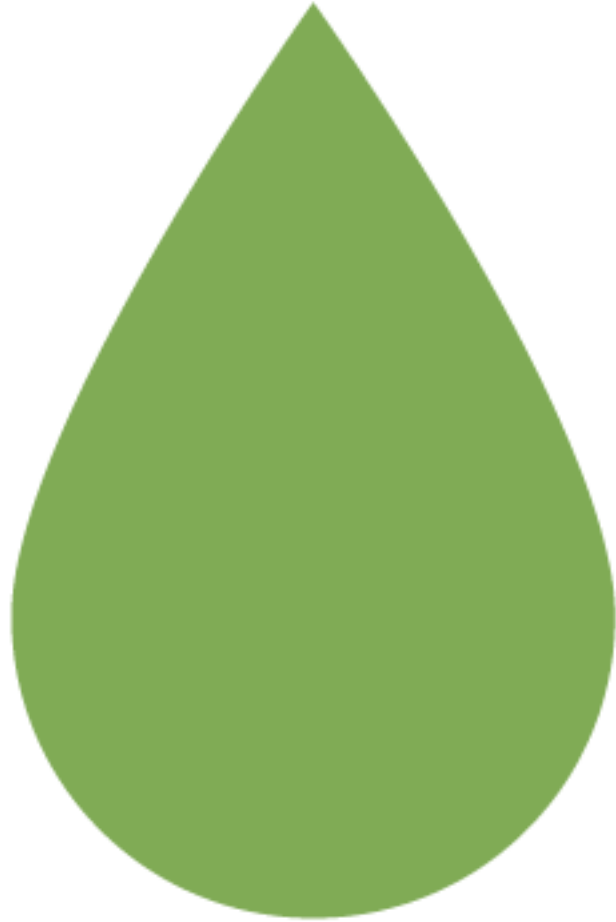


Energy poverty is real & Climate change is inevitable (drought, electricity generation & agriculture etc.) – We need to look after the climate



Avoid the Dutch disease by not relying on one source only





# **WHY?/ WHERE DOES NAMIBIA FIT IN?**

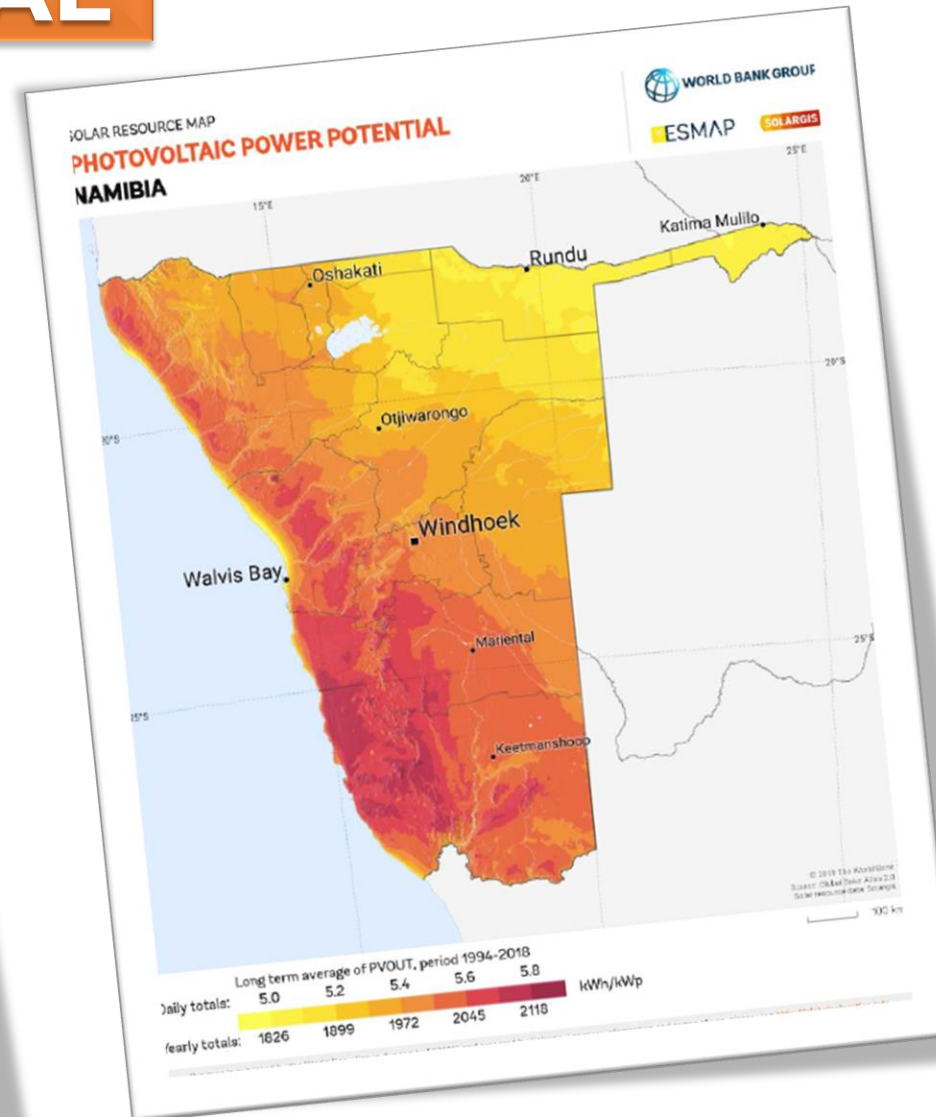
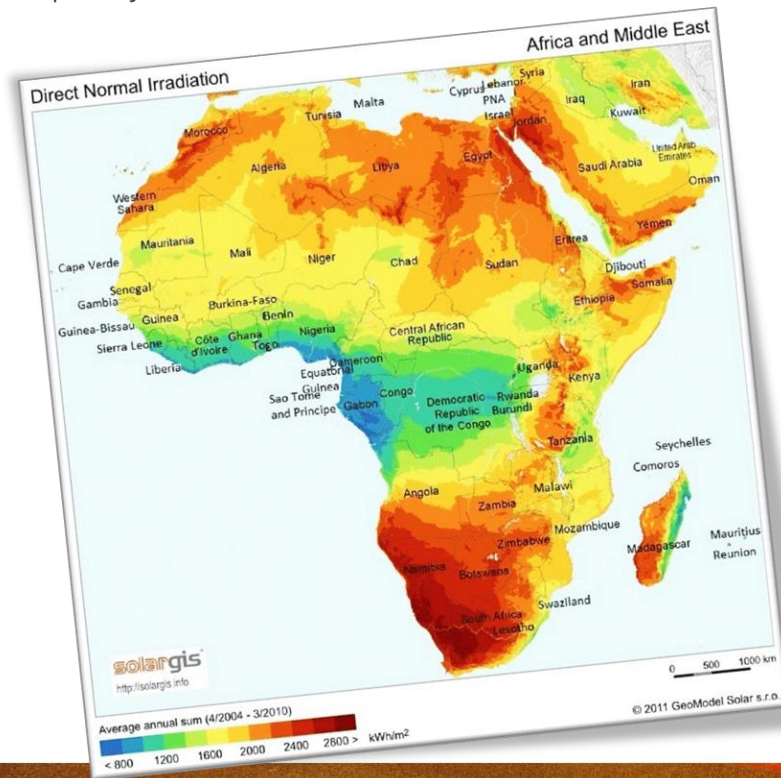


# RENEWABLE POTENTIAL



## Exceptional Solar Resource

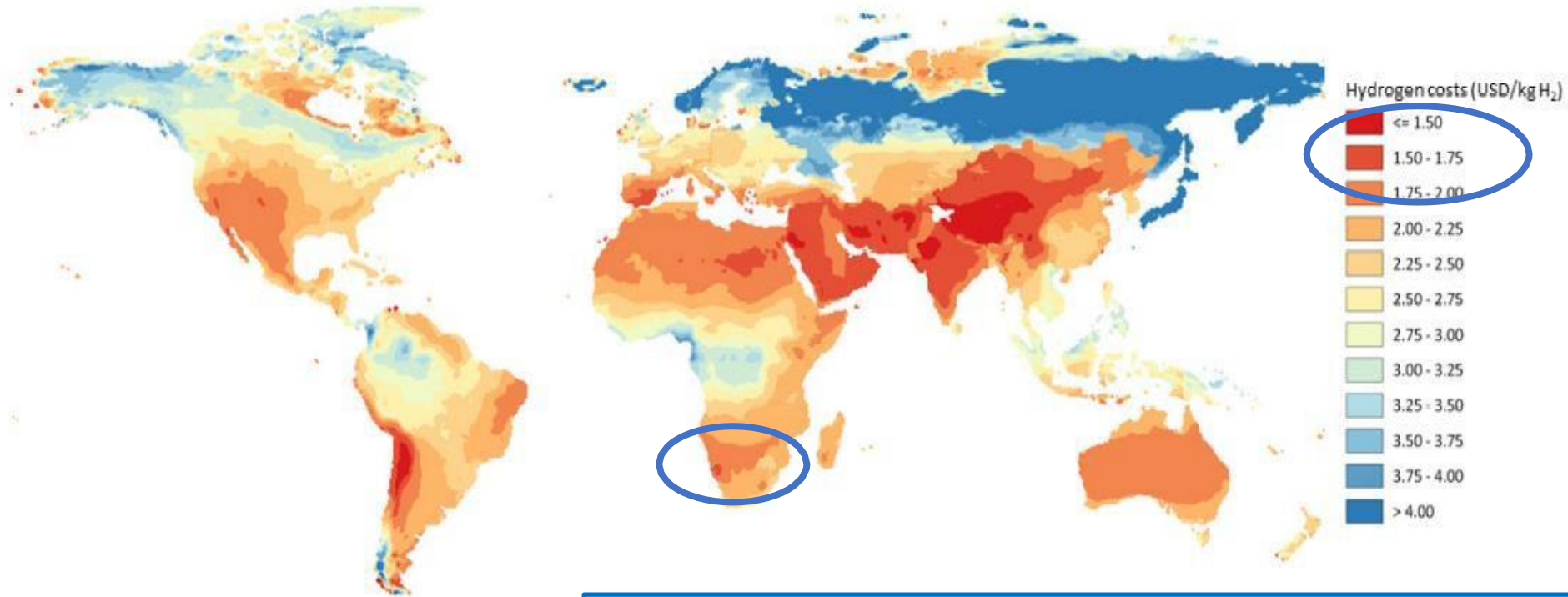
- DNI over 2400 kw/m<sup>2</sup>/year in selected areas
- Gross Solar Capacity Factors Over 30% in selected areas



# Estimated GH Production Costs – Global (2050)



Namibia is very well positioned for GH production at competitive costs in terms of the quality of its solar and wind resources.



Source: IEA, *Global Hydrogen Review 2021*

- Compared to potential competitors in the region, Namibia could produce GH at such competitive costs
- Compared to potential competitors globally, Namibia could produce GH at lower costs.

# Namibia RE Competitiveness

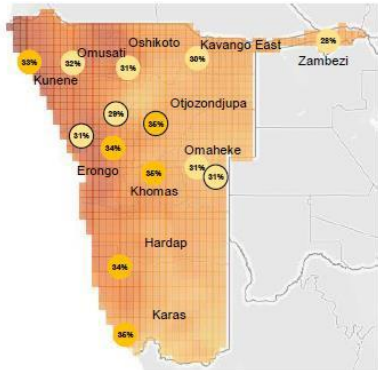


Namibia has world class onshore wind and solar resources and thus could become an exporter of green hydrogen and derivatives

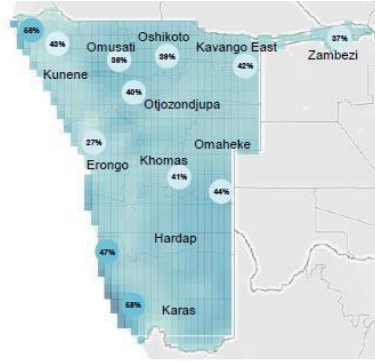
Confidential; not for further distribution

Existing plant PV solar CF 28% 36% Onshore wind CF 25% 62%

PV solar CF in 2020, %

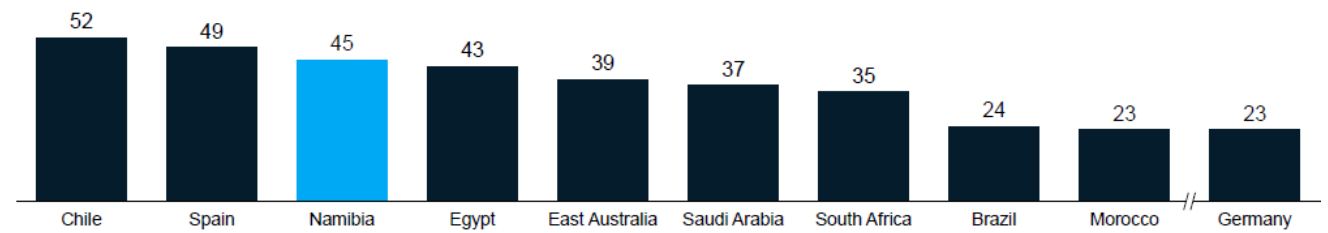


Onshore wind CF in 2020, %

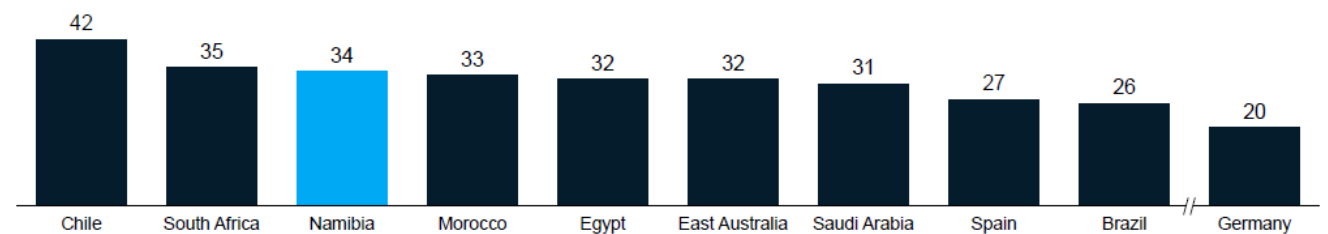


1. All analysis is conducted on 4MW turbines

Onshore wind capacity factor per country<sup>1</sup>, %



Solar capacity factor per country<sup>1</sup>, %



1. Based on top quartile locations

**PV solar CF is fairly constant throughout the country\* (~30-36%), while Southern (Karas) and Northern (Kunene) regions have significantly higher onshore wind CF compared to the rest of the country (~56-58% vs ~40%)**

\* heat reduces output

Source: McKinsey. 6, 7

# International Hydrogen Trade

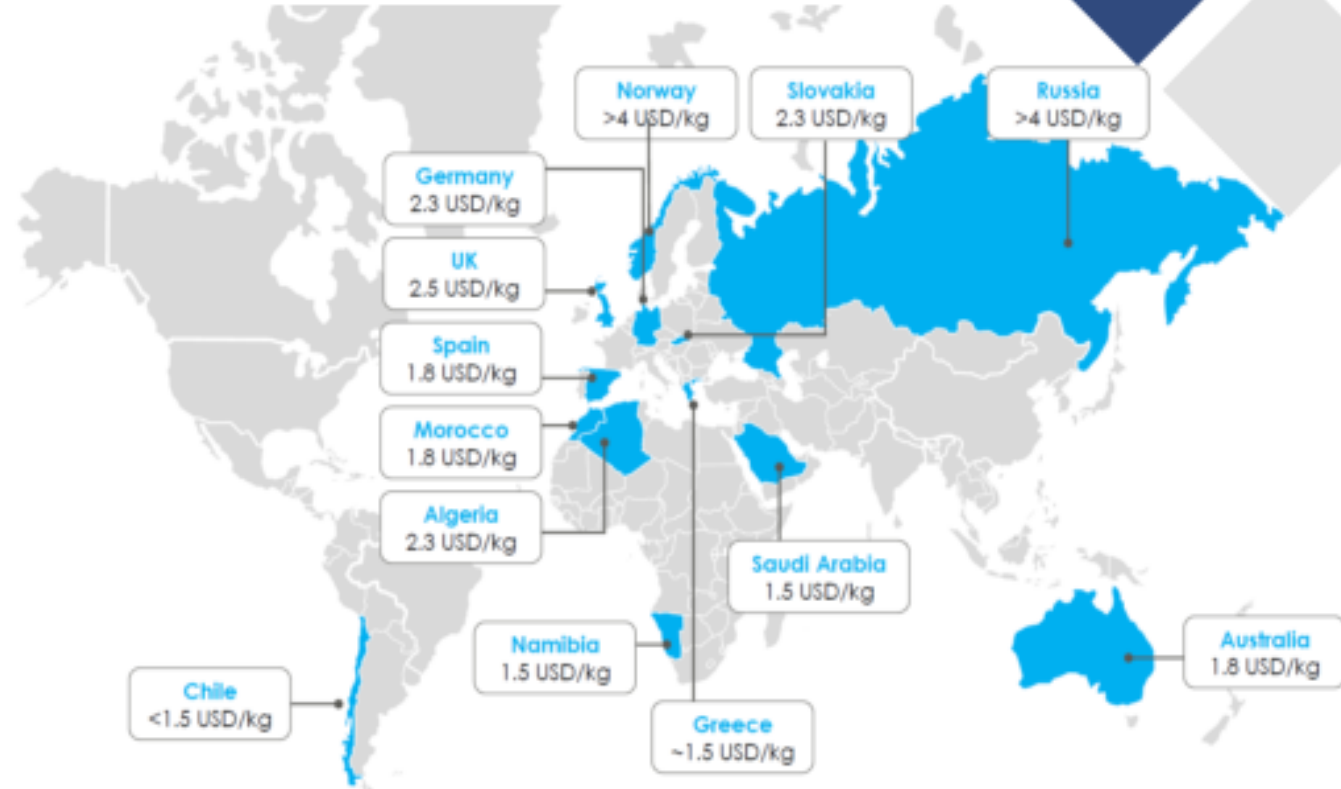
National Awareness Program



## PtX production costs by 2030 based on hybrid wind and PV systems

Namibia benefits from **globally leading wind & solar resource**

- This means Namibia can produce some of the **cheapest electricity on the planet**
- Cost of electricity is the **#1 determinant of cost of green hydrogen**
- **Electrolyzer cost is** the other critical variable; however, technology costs are falling very fast, **expected to fall >70% by 2030**, and become a less relevant variable in the cost (see details p34)



Notes: Indicative numbers per country based on IEA's Global Hydrogen Review 2021. For countries with multiple different prices, the lowest value is displayed  
Source: IEA

# HYDROGEN PROJECTS

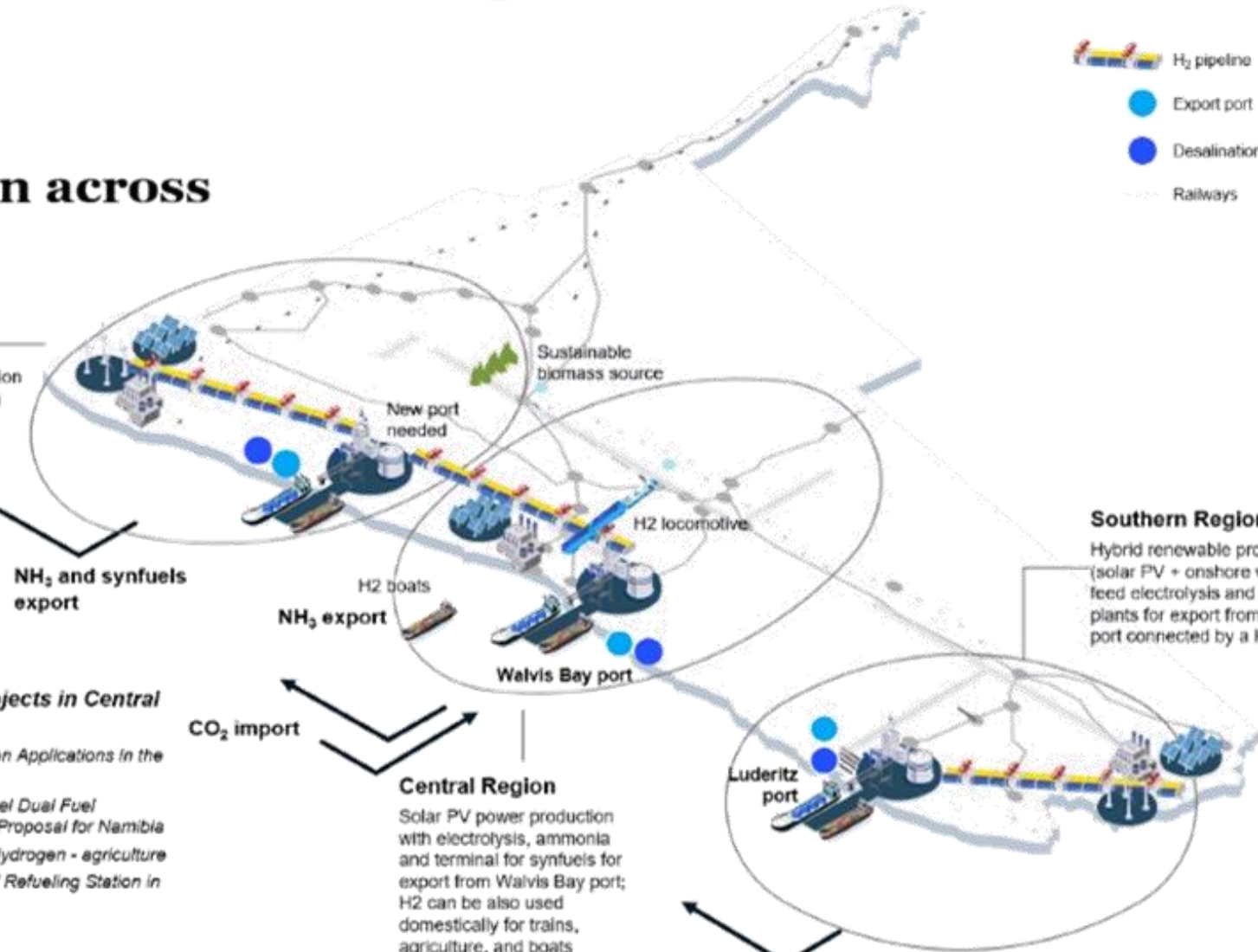


## Integrated vision across the 3 valleys

Illustrative

### Northern Region

Hybrid renewable production (solar PV + onshore wind) will feed electrolysis plant and ammonia production near the new port facility



NH<sub>3</sub> and synfuels export

NH<sub>3</sub> export

H<sub>2</sub> boats

Walvis Bay port

H<sub>2</sub> locomotive

Luderitz port

NH<sub>3</sub> export

### Confirmed pilot projects in Central Region

- Project 1: Green Hydrogen Applications in the Port Environment
- Project 2: Hydrogen-Diesel Dual Fuel Locomotive Pilot Project Proposal for Namibia
- Project 3: Deure Green Hydrogen - agriculture
- Project 4: H<sub>2</sub>-Pilot Plant / Refueling Station in Walvis Bay

### Central Region

Solar PV power production with electrolysis, ammonia and terminal for synfuels for export from Walvis Bay port; H<sub>2</sub> can be also used domestically for trains, agriculture, and boats

H<sub>2</sub> pipeline

Export port

Desalination plant

Railways

### Southern Region

Hybrid renewable production (solar PV + onshore wind) will feed electrolysis and derivative plants for export from Luderitz port connected by a H<sub>2</sub> pipeline

# What is the End goal? Namibia an Energy HUB for Africa



Energy revolution. Which only forms a bedrock for a Manufacturing revolution



Moving from just selling resources  
Primary to beneficiation (secondary & Tertiary)

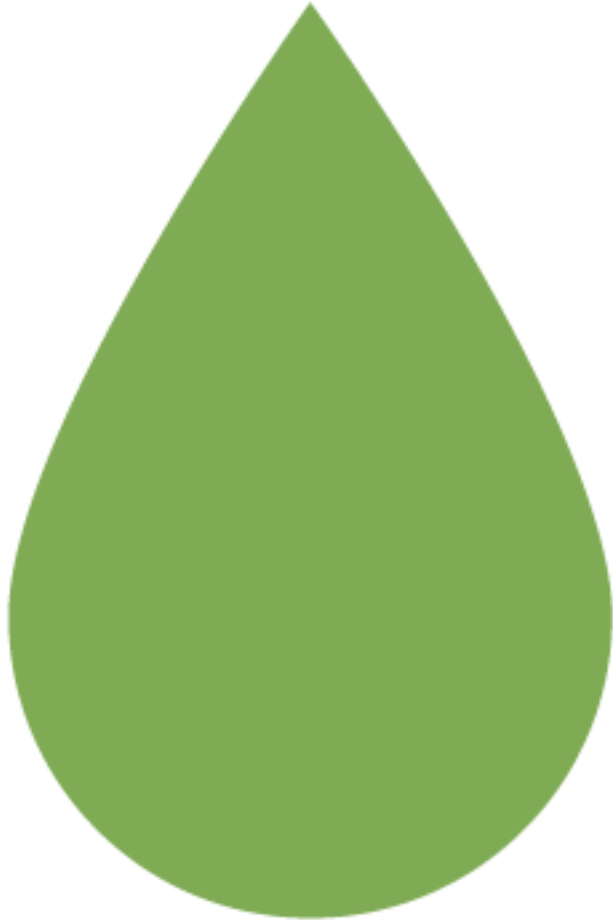


Tertiary Sector (Trading things).



Secondary sector  
(making or creating things)





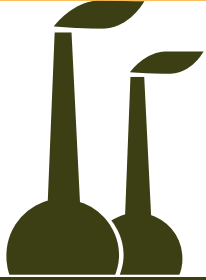
# WHERE DOES NAMCOR FIT IN?

# NAMCOR PERSPECTIVE



- NAMCOR is currently in the process of reviewing its strategy for transitioning towards becoming a broad-based energies company, while simultaneously expanding its footprint in both the upstream and downstream oil and gas sector in Namibia.
- A key priority for NAMCOR is to support Namibia's development of a globally competitive synthetic fuels industry, as a means of diversifying its economy and foreign exchange earning potential away from diamonds and extractive metals.
- Green hydrogen, realizable on the back of Namibia's stellar renewable energy resource potential, provides NAMCOR with the opportunity to fully embrace the energy transition story alongside other exciting resource developments in the oil and gas space.

# GREEN ECONOMY - A NAMCOR PERSPECTIVE



OIL & Gas discoveries synergies with sustainable energies

Enable local commercialization of LNG

Carbon capture utilization and storage  
EOR | Carbon Credits |  
**Refineries**



**Green hydrogen and synthetics fuels**

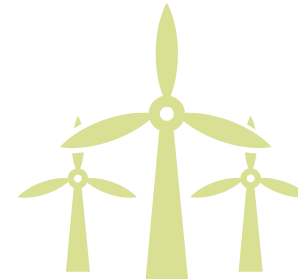
The interest is in green hydrogen as an input in the potential production of synfuels

At least three strategic partnerships on green hydrogen and synthetic fuel development



**Electric Vehicle Machines (EVM)**

Enable the transition of green mobility through establish at least one hybrid service station, making use of both conventional fossil fuels plus EVMs, hydrogen and liquefied natural gas (LNG).



**Renewable energy**

Generation of power from RE to power office building and operations

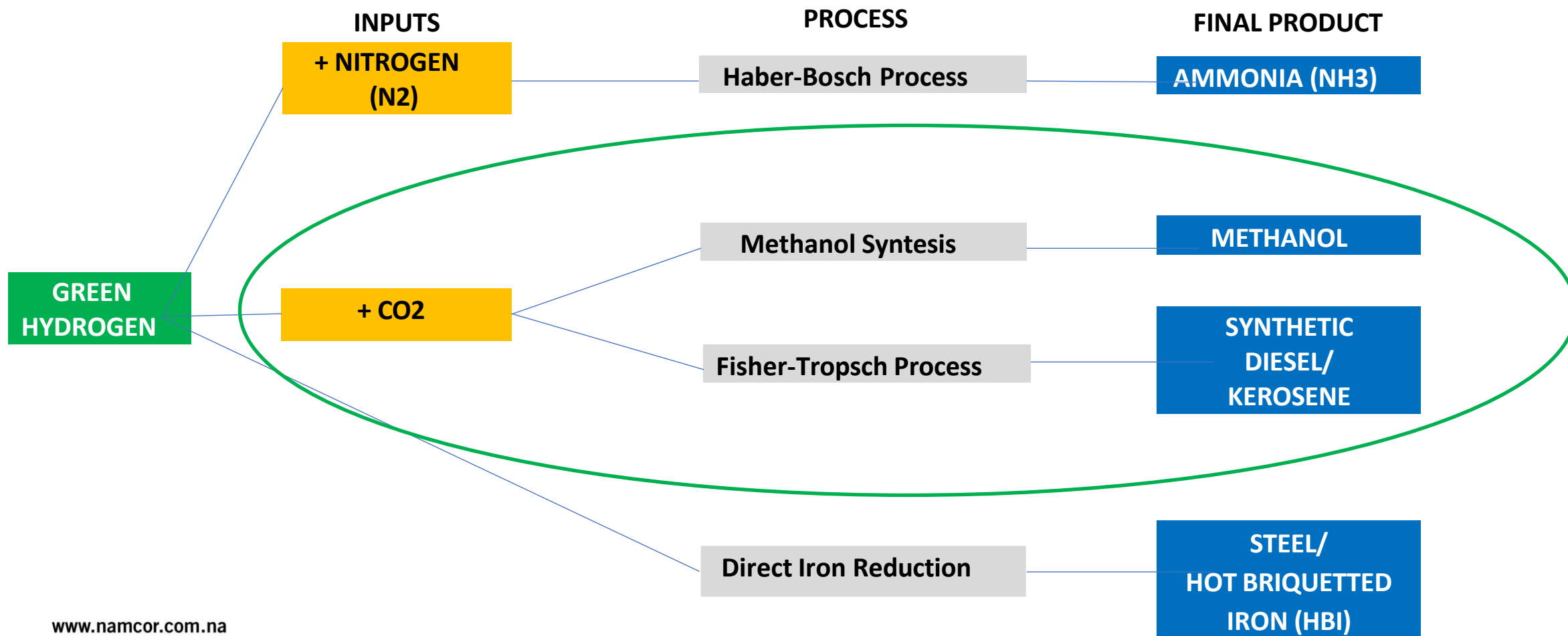
Becoming a green Sustainable fuels company



**Research and development (R&D)**

Partnership in R&D with x2 local x1 international university

# GH Derivatives & Products



# ROLE OF HYDROGEN IN THE OIL & GAS INDUSTRY



- Carbon Border Adjustment Mechanism (CBAM) - heavy tax for commodities if one is selling to European clients.
- The first phase of CBAM starts in Q4 of 2023, though taxation only commences in 2026



- The largest oil and gas producers globally are the biggest investors in hydrogen.
- They are hedging their bets because the oil and gas industry is in its twilight.

- China & India are coming up with new legislation (Tax = CO2 emitted)



- Oil revenue to subsidize green industries in order to build new industries.
- Example of industries – Synthetics fuels, Aluminum Smelting, Zinc Smelting, Steel & Pig iron Manufacturing

- Hydrogen becomes critical due to its clean nature.
- GH2 reduces carbon content of oil & gas



- Different Factories, New product and diversification of export sources, new jobs (direct & indirect), new revenue etc.
- GH2 scholarship, PETROFUND & NSFAF | GH2 vs OIL & Gas employment

# **Hydrogen Blending in Natural Gas Pipelines**

The H21 North of England project in the United Kingdom is a demonstration of blending hydrogen into the existing natural gas grid.

The project aims to convert the gas supply in Leeds to a blend of 20% hydrogen and 80% natural gas.

By using the existing gas infrastructure, the project minimizes the need for new infrastructure development, making the transition cost-effective.

For Namibia, blending hydrogen into existing natural gas systems (pipelines, gas plants etc) can be critical in increasing overall efficiency (as hydrogen burns hotter than methane), but also for reducing GHG emissions.

# Converting Natural Gas Infrastructure to Hydrogen: Case Study



- The Snam Rete Gas project in Italy aims to convert a portion of its natural gas pipeline network to transport hydrogen.
- By repurposing existing infrastructure, the project reduces costs and accelerates the development of a hydrogen economy.

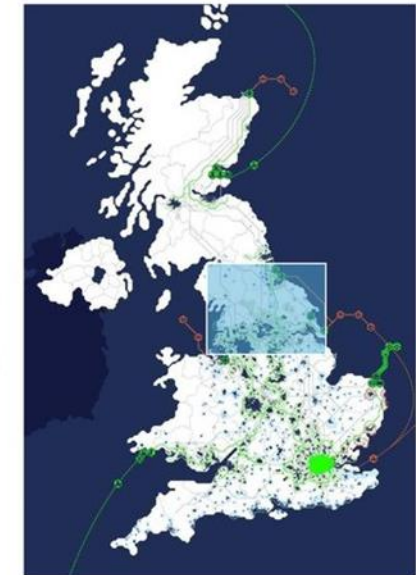
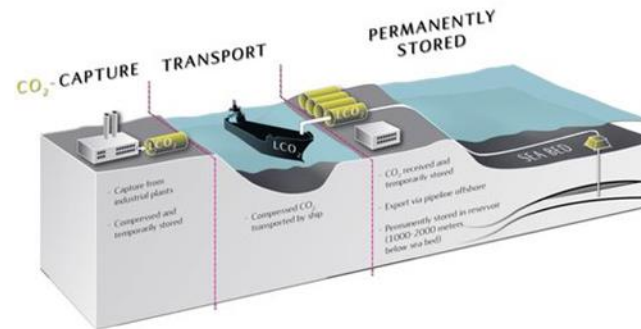




- Framework for carbon markets being developed
- Maximising the oil discoveries
- Trade
- Carbon Credit Offset

## Hydrogen production and CCS H21 North of England

Henrik Solgaard Andersen – H21 Project Manager

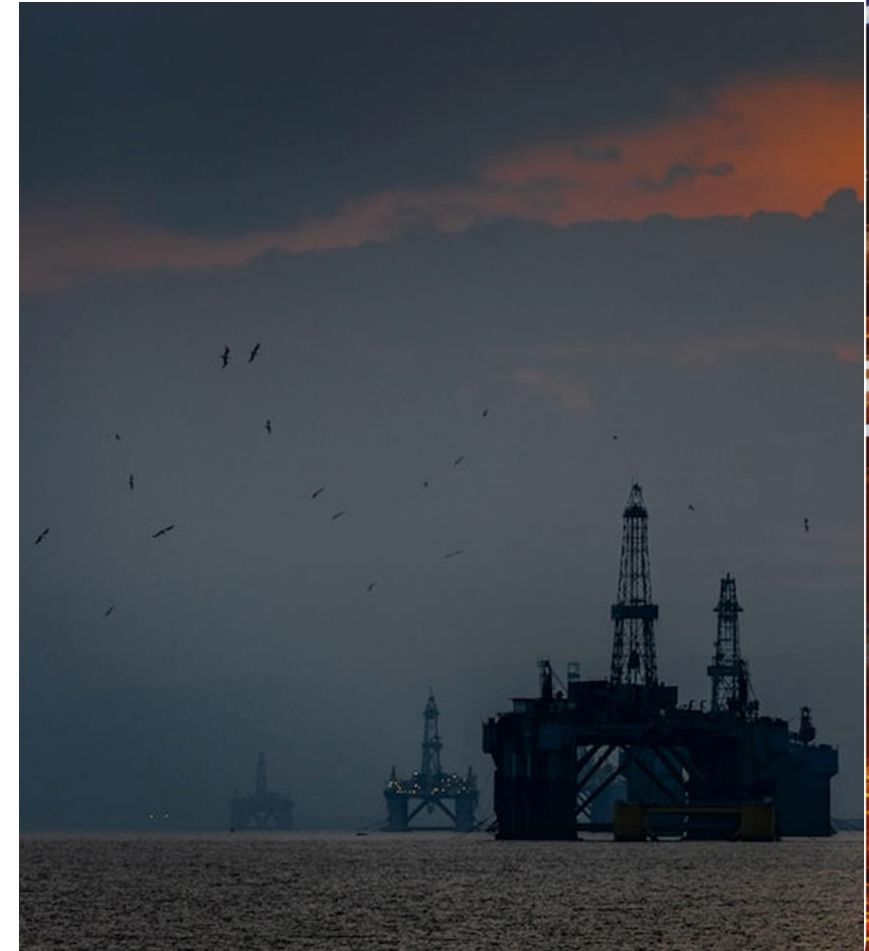


## Offshore Platforms powered by Hydrogen: Use Case



- Offshore oil and gas platforms can utilize hydrogen fuel cells to generate electricity and power their operations.
- Hydrogen fuel cells offer a reliable and emissions-free power source, eliminating the need for diesel generators.
- The Ormen Lange natural gas platform off the coast of Norway has successfully implemented hydrogen fuel cells to reduce its carbon emissions.

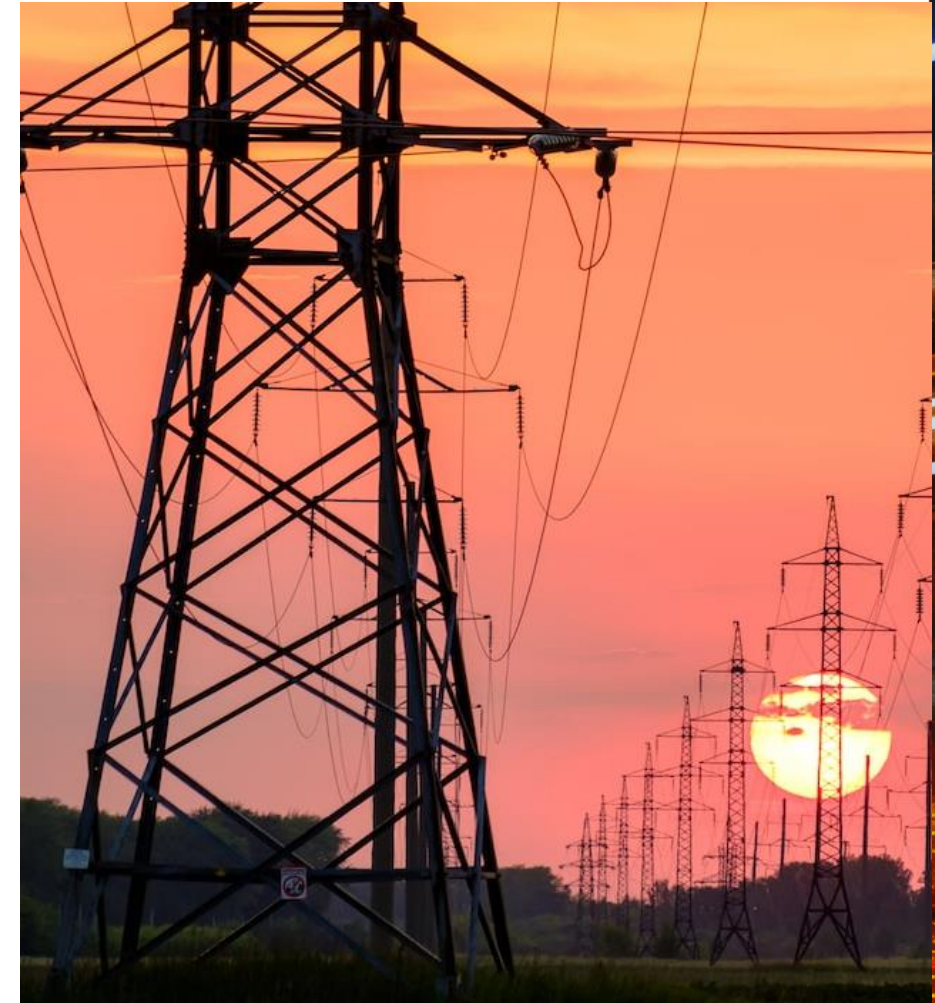
implemented hydrogen fuel cells to reduce its carbon emissions.



Many oil and gas installations are located in remote areas with limited access to traditional electricity grids.

In such cases, integrating hydrogen-based power generation can provide a reliable and clean energy supply.

Projects like the DoIWin3 offshore wind platform in the North Sea use hydrogen-based energy storage systems to store excess renewable energy and supply power during periods of low wind or demand.



# Hydrogen as a Decarbonization Solution for Refineries:



In 2020, the Port Arthur Refinery in Texas, USA, announced a partnership with Air Products to build a large-scale hydrogen production facility.

The facility will produce hydrogen from natural gas while capturing and storing the associated CO2 emissions.

The hydrogen produced will be used to desulfurize transportation fuels and reduce the overall carbon footprint of the refinery.

As there is no refinery in Namibia, could discussion be opened up with Angola for ship hydrogen for Soyo refinery? Could Namibia consider fertilizer production (i.e., beyond the planned Ammonia carrier?). Note: going into the fertilizer market makes a lot of sense and could change the game when it comes to transportation.

# Hydrogen for Hydrogenation Processes in Refineries: Case Study



Oil refineries often use hydrogen in hydrogenation processes to upgrade heavy crude oils and produce cleaner fuels.

Integrating hydrogen production through electrolysis powered by renewable energy sources can significantly reduce the carbon footprint associated with hydrogenation processes.



# Hydrogen for Enhanced Oil Recovery (EOR): Case Study



Hydrogen can be used in Enhanced Oil Recovery processes to improve the efficiency of oil production.

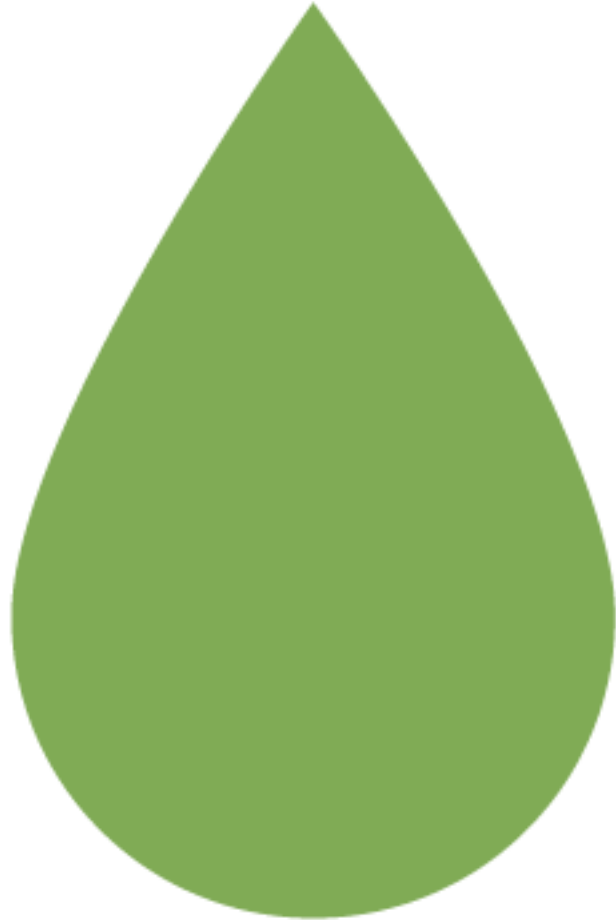


In some cases, hydrogen-rich gases produced during industrial processes or generated from renewable sources can be injected into oil reservoirs to facilitate the extraction of additional oil.



This approach not only increases oil recovery but also sequesters carbon dioxide, making it an environmentally beneficial method.





**WHERE DO YOU FIT IN?  
Opportunities for you.**

# Southern Corridor Development



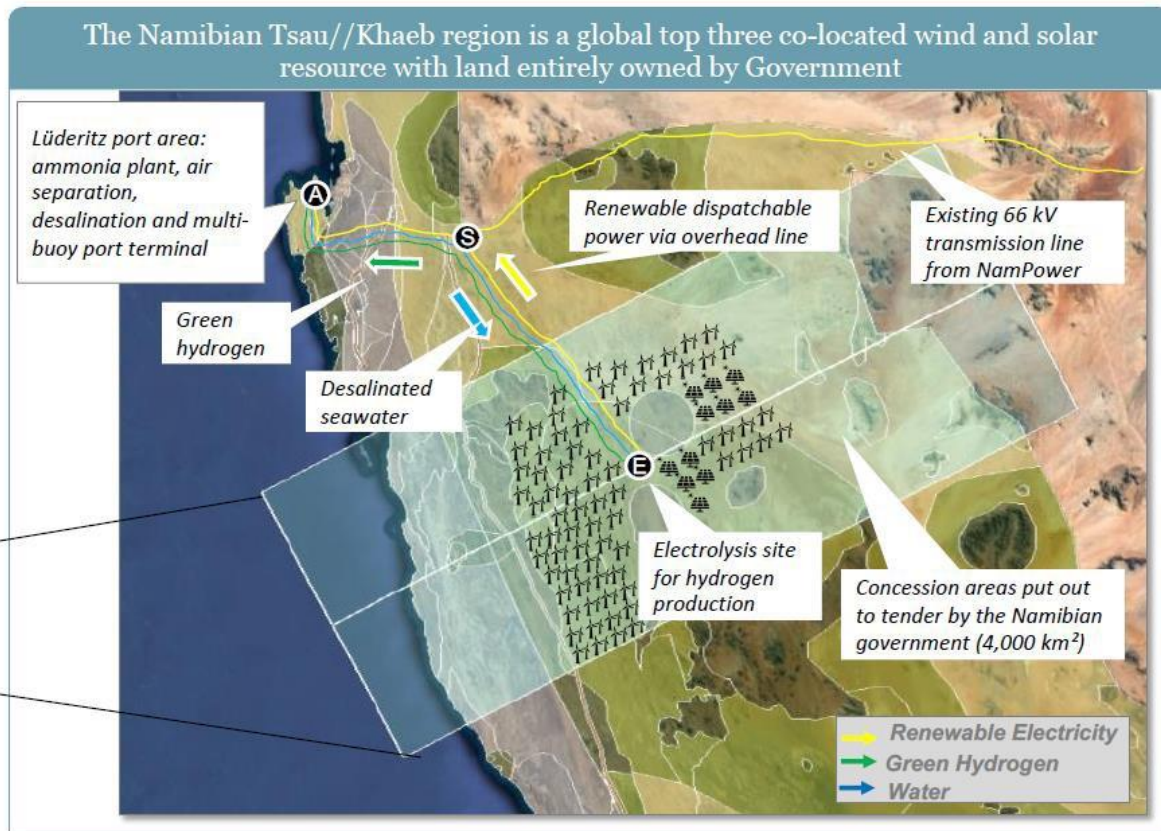
	Designation	Scope
1	Lüderitz Town	Existing port and proposed production site for green ammonia export and desalination
2	Oranjemund Town	Proposed Green Hydrogen R&D hub (NIPDB plan)
3	Gemsbok development site	Proposed in 2021 SCDI RFP as first expansion zone after Springbok and Dolphin
4	Hyena development site	Not included in 2021 SCDI RFP, expected to be largely used by NamPower (existing MET mast site – TBC)
5	Springbok development site	Awarded to HYPHEN Hydrogen Energy in 2021 SCDI RFP
6	Dolphin development site	Awarded to HYPHEN Hydrogen Energy in 2021 SCDI RFP
7	Oystercatcher development site	Yet unannounced and unallocated <i>(proposed site for future expansion)</i>
8	Seal development site	Yet unannounced and unallocated <i>(proposed site for future expansion)</i>
9	Oryx development site	Yet unannounced and unallocated <i>(proposed site for future expansion)</i>
10	Jackal development site	Yet unannounced and unallocated <i>(proposed site for future expansion)</i>
11	Rhebok development site	Yet unannounced and unallocated <i>(proposed site for future expansion)</i>
12	Leopard development site	Yet unannounced and unallocated <i>(proposed site for future expansion)</i>
13	Oranjemund R&D Zone	Proposed Green Hydrogen R&D hub (NIPDB plan)



# Southern Corridor Development Initiative (SCDI) - Hyphen



Hyphen is one of largest, furthest developed ammonia projects worldwide



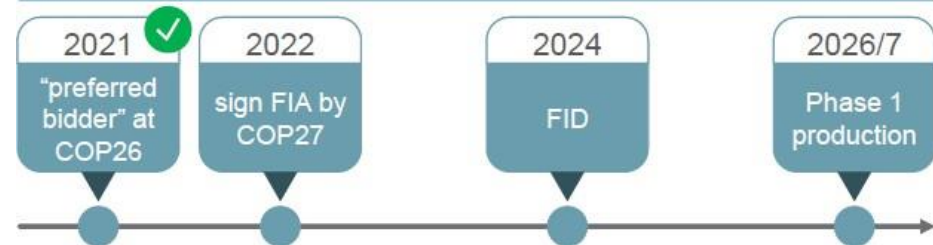
www.namcor.com.na

## Key facts about Hyphen

Phase one & two

Installed capacity	6-7 GW renewables 3.5 GW electrolyzers	GDP of Namibia: ca. US\$10 billion 1 large steel plant: 350 kt/a H <sub>2</sub> NH <sub>3</sub> demand Germany: ~3 Mt/a
Total investment	USD \$10BN	
Green hydrogen/ammonia	350 kt/a H <sub>2</sub> ; 2 Mt/a NH <sub>3</sub> (4-5 Mt/a CO <sub>2</sub> avoided)	
Construction jobs	15,000 for 4-5 years	
Operational jobs	3,000 permanent jobs	

## Hyphen currently on track to reach major milestones



Source: Hyphen

# Southern Corridor Development



	Designation	Scope
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12	Leopard development site	Yet unannounced and unallocated <i>(proposed site for future expansion)</i>
13	Oranjemund R&D Zone	Proposed Green Hydrogen R&D hub (NIPDB plan)

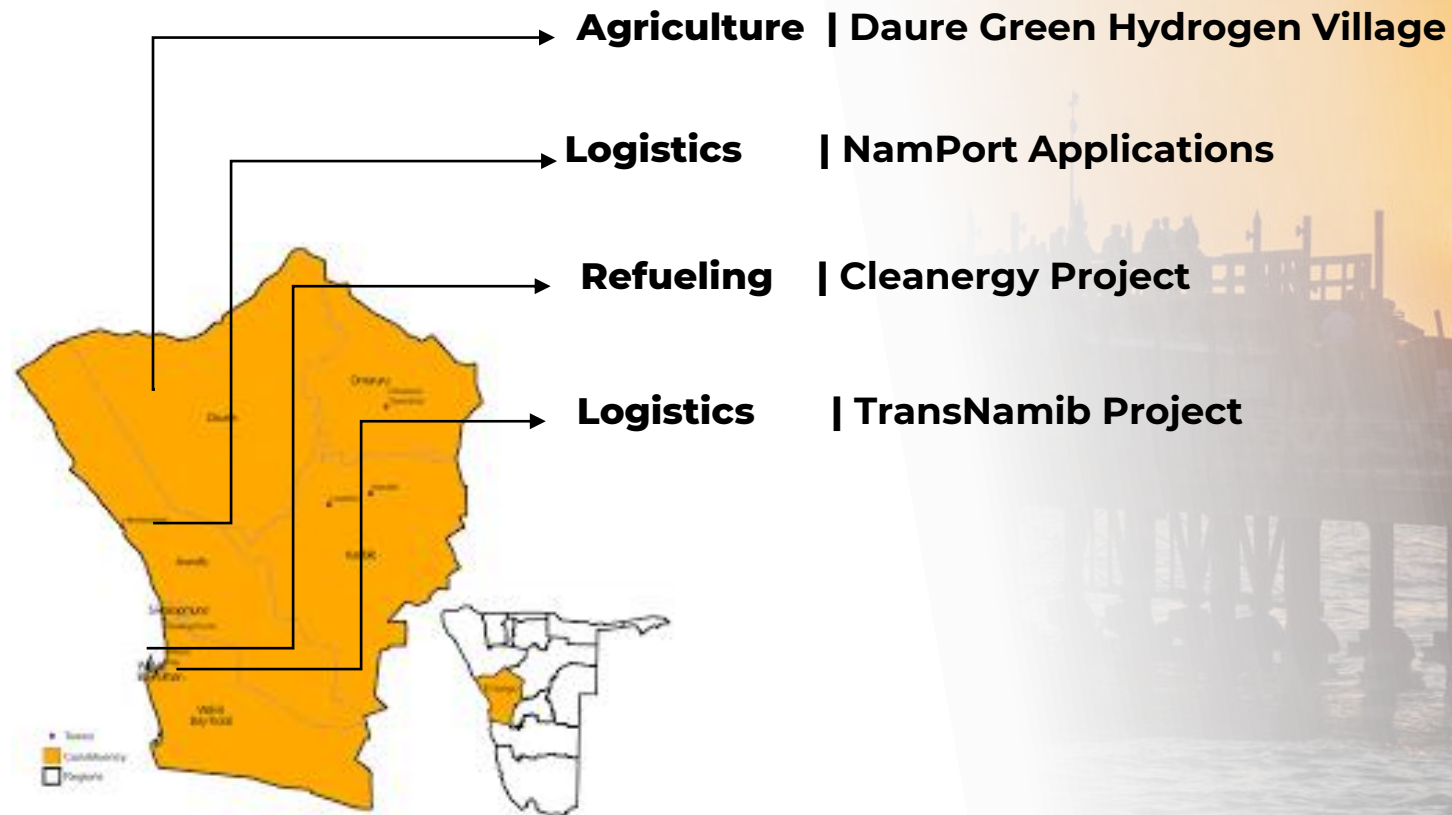
# Southern Corridor Development



	Designation	Scope
1	Lüderitz Town	Existing port and proposed production site for green ammonia export and desalination
2	Oranjemund Town	Proposed Green Hydrogen R&D hub (NIPDB plan)
3	Gemsbok development site	Proposed in 2021 SCDI RFP as first expansion zone after Springbok and Dolphin
4	Hyena development site	Not included in 2021 SCDI RFP, expected to be largely used by NamPower (existing MET mast site – TBC)
5	Springbok development site	Awarded to HYPHEN Hydrogen Energy in 2021 SCDI RFP
6	Dolphin development site	Awarded to HYPHEN Hydrogen Energy in 2021 SCDI RFP
7	Oystercatcher development site	Yet unannounced and unallocated <i>(proposed site for future expansion)</i>
8	Seal development site	Yet unannounced and unallocated <i>(proposed site for future expansion)</i>
9	Oryx development site	Yet unannounced and unallocated <i>(proposed site for future expansion)</i>
10	Jackal development site	Yet unannounced and unallocated <i>(proposed site for future expansion)</i>
11	Rhebok development site	Yet unannounced and unallocated <i>(proposed site for future expansion)</i>
12	Leopard development site	Yet unannounced and unallocated <i>(proposed site for future expansion)</i>
13	Oranjemund R&D Zone	Proposed Green Hydrogen R&D hub (NIPDB plan)

# The Erongo Valley

[www.gh2namibia.com](http://www.gh2namibia.com)







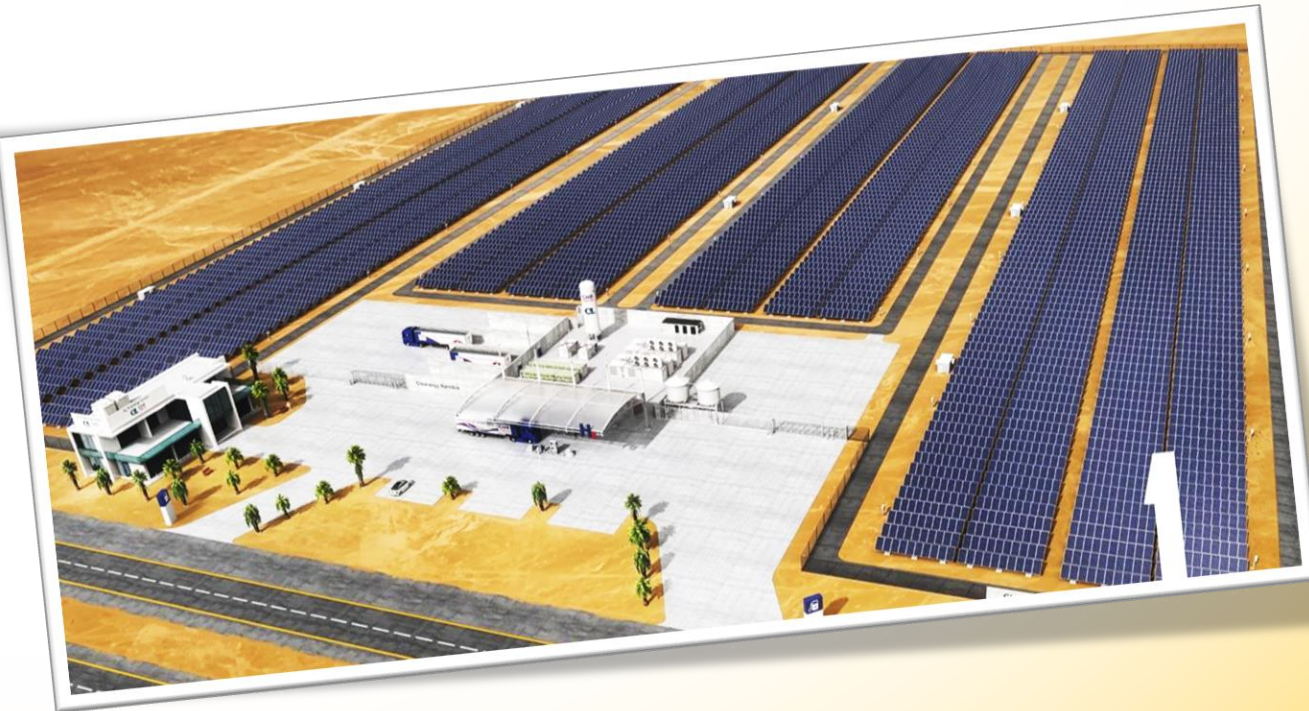
## Pilot Plant information

Project Name	: H2-Pilot Plant / Refuelling Station in Walvis Bay
Location	: Walvis Bay
Project Size	: 5MW Electrolyser
Project Phase Value	: 25 million EURO
Project Partners:	CMB.TECH, Ohlthaver & List Group (JV = Cleanergy Solutions Namibia)

## Project Overview

The plant consists of a 5 MW photovoltaic solar system, a 5 MW electrolyser and a H2-refuelling station. The purpose of the plant is to test technology to develop offtake applications within the transport sector, mining sector and port activities and to facilitate technology transfer and skills development into Namibia.

Building upon the lessons learned with the pilot plant, a second phase with a bigger commercial plant including ammonia production is planned.



# Potential Socio-Economic Impacts



GREEN HYDROGEN DEVELOPMENT OFFERS A BROAD RANGE OF SOCIO-ECONOMIC IMPACTS



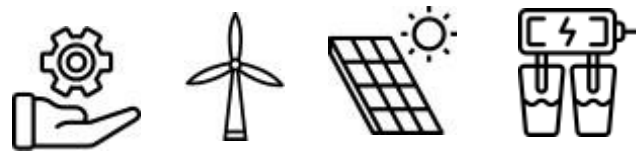
## JOB CREATION

- Direct
- Indirect
- Induced



## ADDITIONAL GDP

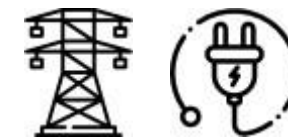
**Wider socio-economic impact**



## LOCAL CONTENT MANUFACTURING

**Assembly and Manufacturing**

- Wind turbines (blades, towers)
- Solar PV (solar modules, cells)
- Electrolyzer



## ELECTRIFICATION

**Support the Government objective of energy access and electrification**

# Sustainable Energies Opportunities



## Scholarships/Education

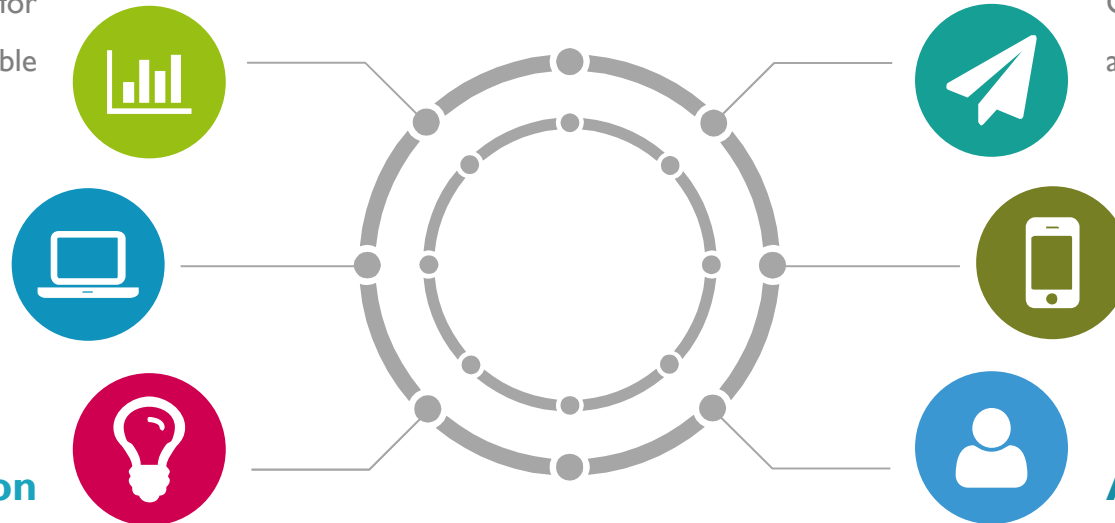
Through BMBF and the JCoI, Scholarships for over 200 Namibians are available

## Services

Service Provider opportunities such as catering, cleaning, security, renovations

## Value Addition

Development of value addition to Hydrogen products such as ammonia and fertilizer



## Employment

Over 15 000 direct employment opportunities with average annual wages above N\$ 100 000

## Construction

Construction opportunities as SMEs for roads, buildings, concrete, electrical, warehousing and houses

## Associated and Enabling infrastructure

Housing, ports, roads and other infrastructure nodes required to enable the hydrogen economy



HYPHEN





# SCHOLARSHIP OPPORTUNITIES



YOUTH FOR GREEN HYDROGEN (Y4H2) SCHOLARSHIP PROGRAMME 2024

The flyer is titled "SCHOLARSHIP CALL" and "YOUTH FOR GREEN HYDROGEN (Y4H2) SCHOLARSHIP PROGRAMME 2024". It features logos for the Namibian government and the German Federal Ministry of Education and Research. The central image shows a field of solar panels in the foreground and wind turbines in the background under a blue sky with clouds. The text "H2" is overlaid on the image. At the bottom, it says "IMPLEMENTED BY SASSCAL" with the SASSCAL logo and website information.

- A resume (2 pages maximum).
- Two Reference letters (At least one Academic).
- A letter of commitment from the employer to release the employee for full-time studies if employed.

Incomplete applications will **not be accepted**.

## Application Process

- i. Online applications through the system are preferred. Forms are available online at this link <https://apply-y4h2.sasscal.org> and hard copies of the application forms can also be obtained from the offices of the Regional Governors and Regional Councilors countrywide.
- ii. Candidates can apply for the scholarship without an admission letter from a Namibian university or vocational training centre.
- iii. Hard copies of applications should be addressed to the SASSCAL Y4H2 Admission, SASSCAL Regional Secretariat, 28 Robert Mugabe Avenue, P.O. Box 87292, Windhoek, Tel: (+264) 61 223997 or sent as a single pdf document via email to [jcol.Y4H2@sasscal.org](mailto:jcol.Y4H2@sasscal.org) or can be dropped at the offices of the Regional Governors in a dedicated Box labelled Y4H2 APPLICATIONS 2024 for onward submission to SASSCAL.
- iv. Scholarship offers will be provisional until candidates submit proof of admission to a relevant program from a Namibian university or vocational training centre.

The deadline for submission of the applications for Y4H2 scholarships is **06 October 2023**.

If you do not receive a response from SASSCAL by **15 December 2023**, consider your application unsuccessful.

# IMPLEMENTATION OFFICE JOB OPPORTUNITIES



[www.potential.com.na](http://www.potential.com.na)

[www.namcor.com.na](http://www.namcor.com.na)

THE NAMIBIAN JOB FINDER FRIDAY 8 SEPTEMBER 2023 23

### CAREER OPPORTUNITIES

**The Position**

Namibia is blessed with abundant wind and solar renewable energy resources and the Government is looking to harness these resources to establish a new synthetic fuels industry. The Green Hydrogen Namibia Program (GH2 Namibia) aims to harness the incredible potential of Green Hydrogen as a cornerstone of our nation's sustainable energy mix. GH2 Namibia has been appointed to carry out the Government's meticulously crafted Green Hydrogen Strategy. Over the coming 3 years, they aim to drive industrialisation across the country driving for successful execution of the designated pilot projects. The Program envisions placing Green industrialisation, catalysed through green hydrogen development, at the heart of their construction endeavour, ensuring economic growth and prosperity is achieved for all Namibians. To make this goal a reality, GH2 Namibia is seeking to attract top-tier talent that will have the unique opportunity to make a lasting impact within the emerging field of Green Hydrogen, a novel concept in Namibia, a burgeoning industry worldwide, and a field of the pinnacle of advancements in renewable energy technology.

### HEAD: PLANNING, POLICY, & STRATEGY

**The Position**

As the Head: Planning, Policy & Strategy you will work closely with the Head: Commissioner in the conception and execution of the GH2 Namibia strategy. You will be responsible for the development, design, and implementation of strategic plans across the various organisational units, monitoring and reporting on project progress through the implementation of key performance metrics. As part of your role, you will evaluate performance against set budgets, plans, and targets. Thus you will possess extensive experience in the development and monitoring of project budgets and financials. The successful candidate for this position should be results-driven, with high attention to detail and a proven ability to manage multiple projects with confidence. This position appeals to you if you are a keen strategist who is highly adaptable, determined to achieve optimal outcomes and committed to make a lasting impact in the development of Namibia's Green Hydrogen industry.

**Minimum requirements**

- A Master's degree in Business Administration, Accounting, Finance, or equivalent.
- Certification in Accounting and Finance (e.g. CPA, Chartered Accounting, CMA).
- Minimum of 10 years' relevant experience of which 6 should have been in a similar role.
- Proficiency in project management, planning and budgeting.
- Experience working on large-scale infrastructure programs would be an additional advantage.
- Proficiency in English.

### EXECUTIVE ASSISTANT

**The Position**

The role of the Executive Assistant will be to provide comprehensive administrative support to the Commissioner, ensuring that their daily tasks, commitments, and communications are managed seamlessly. Key responsibilities include high-level administrative tasks, such as calendar management and prompt handling of correspondence. As the Executive Assistant to the Head, Commissioner you will be entrusted with the task of nurturing positive relationships with relevant stakeholders, ensuring timely and effective communication is distributed from the GH2 Namibia office. Success in this role is contingent upon reliability, strong organisation and interpersonal skills, and adaptability within evolving circumstances.

**Minimum requirements**

- A Bachelor's Honours degree in Business Administration from a recognised institution.
- Master's degree in business administration or a related field would be an additional advantage.
- 5 to 8 years' experience as an Executive Assistant.
- Relevant experience in the public sector environment.
- Ability to travel locally upon request.
- Proficiency in English.

**Interested?**

The closing date for applications is 22 September 2023.  
For more detail on the above positions, kindly follow the application instructions on the Potentia website [www.potentia.com.na](http://www.potentia.com.na) and upload a copy of your CV.

All suitably qualified Namibians are encouraged to apply. If you are not contacted within 2 weeks of the closing date, please consider your application unsuccessful. Only electronic applications and CVs submitted via the Potentia website will be accepted. Our client reserves the right not to make any employment appointment and offer.

GH2 NAMIBIA

POTENTIA  
[www.potentia.com.na](http://www.potentia.com.na)

## Conclusion



- It is imperative to diversify beyond oil and gas, gaining competitive advantage and differentiation with low carbon technologies.
- The Namibian crude oil will be going into a shrinking market – so prices may not remain as high as it currently is due to most of global transportation becoming electric – moving from petrol to diesel.
- Hence, focusing on oil and gas alone might expose Namibia economically.
- Namibia is one of the few countries in the world with the alignment of critical resources – oil, gas, solar, wind, land and solid minerals.
- The only other country that could potentially come close to Namibia in terms of the above-mentioned alignment is Chile.
- Harnessing these on tandem has more value than doing in silos.



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▪ [www.namcor.com.na](http://www.namcor.com.na)



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***THANK YOU***