

Green Swan Investment Portfolio Intrapreneur's Compass

Yosuke Ueda / Mitsui O.S.K. Lines Ltd.

2021.1.10

Question/Motivation/Idea

The Intrapreneur's Compass

**GREEN SWANS
OBSERVATORY**



THE STORY
+ What's the current story?
+ What is my counter-narrative?

CO-TRAVELERS
+ Who are key stakeholders?
+ How will I keep their fire alive?

How can international shipping contribute to the decarbonization?

My World-Changing Idea

- + What idea do I want to test?
- + What are my non-negotiables?

**Green Ammonia Supply Chain
Power network by ships**

**Energy
Transition**

- Distance Traveled
- + What will be my indicators of progress and success?
 - + How will I measure impact?

MY QUESTION

What's my higher order question?

- Travel conditions**
- + How's the environment in my organization?
 - + How much time it will take?

Responsibility

MY MOTIVATION

What drives me?

- Getting on the move
- + What experiments do I need to test my idea?

Resilience PLAN
+ What is my "hydration" plan?

Feeding My Project
+ How will I find people, permission, time and money for my project?



Green Swan Investment Portfolio

Unlocking decarbonization with Green Ammonia and Ocean Grid

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Key Shifts: Energy Transition



Energy Transition

Global scale change from Fossil Fuels to Renewable Energies
+ Rapid Electrification

✓ Hard-to-abate-sectors

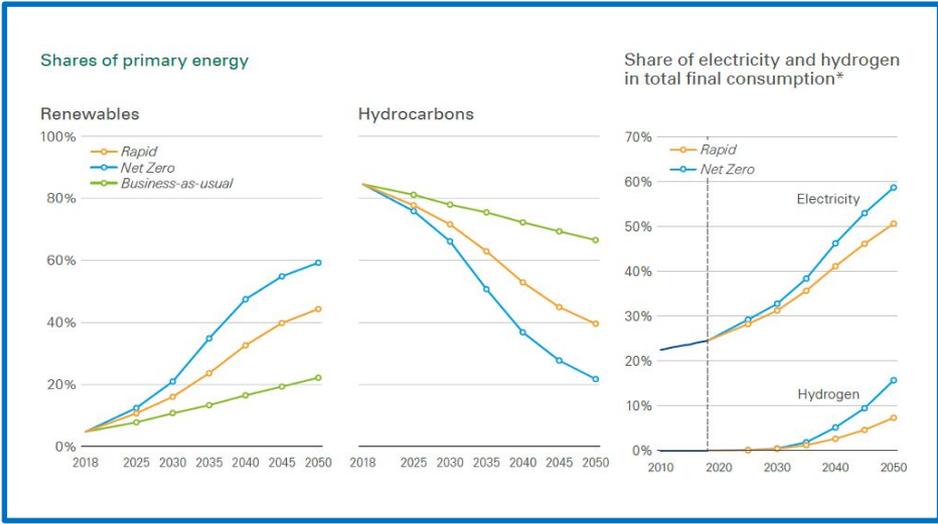
Fossil fuels → ~~Electrification~~ Green fuels

✓ Off-the-grid areas (e.g. remote islands)

Diesel generators + Fossil fuels → Alternative generators + Green fuels



Keep up with Energy Transition

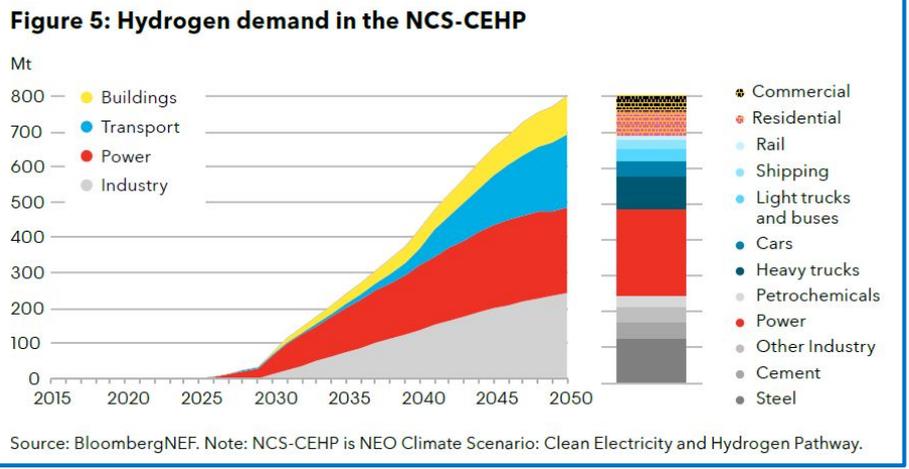


BP Energy Outlook 2020

Growing share of Renewables Electrification, and Hydrogen

Accelerate around 2030

Hard to electrify >>> Hydrogen



Source: BloombergNEF. Note: NCS-CEHP is NEO Climate Scenario: Clean Electricity and Hydrogen Pathway.

Reaching Off-the-Grid



Indonesia for example...



Ministry Energy and Mineral Resources
 - Indonesia Electricity Infrastructure Development
<https://repi.files.wordpress.com/2014/02/indonesia-electricity-infrastructure-development-2012.pdf>

Poor grid connection

Further...

“Ordinary citizens are forced to deal with the air pollution from surrounding coal plants, diesel generators, and increased frequency of irregular weather. If Indonesians care about quality of life, then they must care about this issue.”

— Ery Wijaya, senior analyst, Climate Policy Initiative of Indonesia



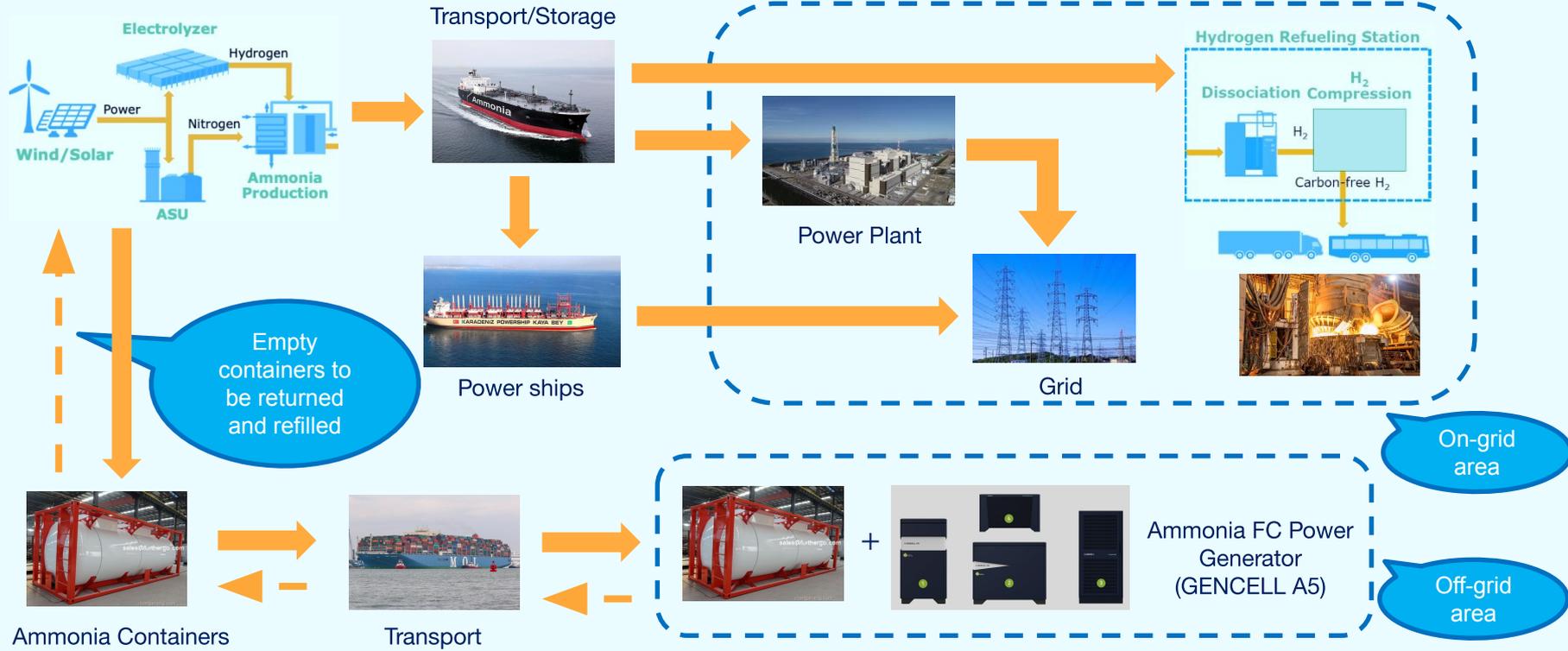
About 20% of the population doesn't have an access to electricity... Villagers in non-electrified areas rely on candles, kerosene lamps, dry cells, and car batteries...

Poor air quality

No Electricity

Energypedia
https://energypedia.info/wiki/Indonesia_Energy_Situation

Green Ammonia and Ocean Grid



Organization - Supply & Distribution



MOL

GENCELL
POWER FOR HUMANITY.™

MOL



**Ammonia
Distribution Unit**

**Ammonia
Supply Unit**



Ammonia Ships/Containers



Power Ships

Lease from
external owners



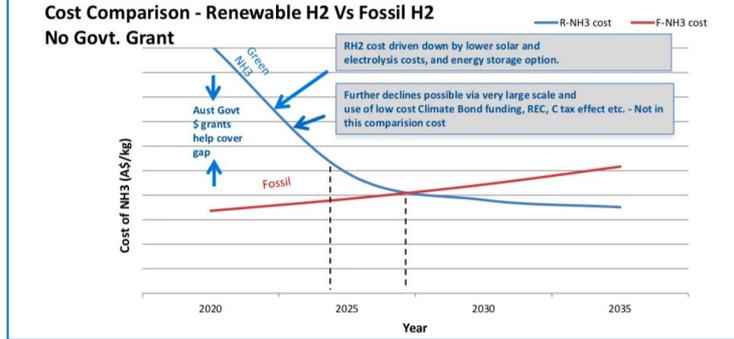
Renewable Power Generation
Green Ammonia production

Feasible futures ahead



1. Grid scale ammonia power generation
2. Ammonia power ship
3. Green Ammonia production
4. Green Ammonia cost reduction
5. Government subsidy

Renewable Ammonia Project



Low feasibility

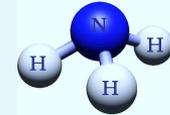
High impact



⑤ Subsidy



④ Cost reduction



③ Production



② Power ship



① Power generation

High feasibility

Low impact



Ugly Ducklings 投資対象(名)	Investment type (<i>philanthropic or commercial</i>) 投資の種類 (社会貢献／ 事業投資)	Amount 投資額	Expected financial ROI 期待されるROI	Expected non-financial ROI 期待される非財務ROI
<i>GENCELL</i>	Commercial	\$460 Million	Middle	Micro Grid suitable
Green Ammonia Plant	Commercial	\$5-7 Billion	High Australia	Competitive energy price
<i>Renewable Energy (Solar) Plant</i>	Commercial	\$2 Billion	High Australia	Competitive energy price

Other 3 Dimensions

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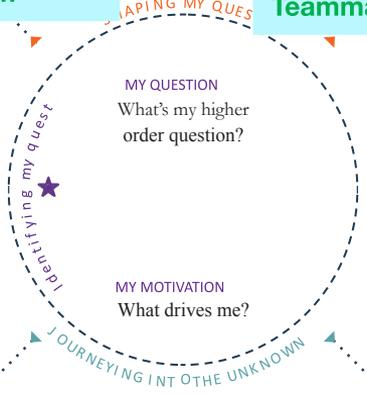
CO-TRAVELERS

- + Who are key stakeholders?
- + How will I keep them?

Shipping = Passive
 ⇒ **Cutthroat competition**
Energy Transition = Opportunity to change our idea
~~Earn from ship~~ ⇒ **Earn from whole power system**

Gatekeepers: Encourage mindset shift
Sponsors & Guides: This is your plan, boss!!
Spectators: Incentivize organizationally
Teammates: Share higher order concepts

- My World-Changing Idea**
- + What idea do I want to test?
 - + What are my non-negotiables?



Travel conditions

- + How's the environment in my organization?
- + How long will it take?

Sneaky start until I get co-travelers support

- Distance Traveled**
- + What will be my indicators of progress and success?
 - + How will I measure impact?

- Getting on the move**
- + What experiments do I need to test my idea?



- Resilience PLAN**
- + What is my "hydration" plan?

- Feeding My Project**
- + How will I find people, permission, time and money for my project?



Thank you for listening!!