

Financing requirements for the Hydrogen economy

Presentation by
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Funding perspectives



The funding needs of the commercialisation of Green Hydrogen Economy is broader than your typical project finance ...

Role:

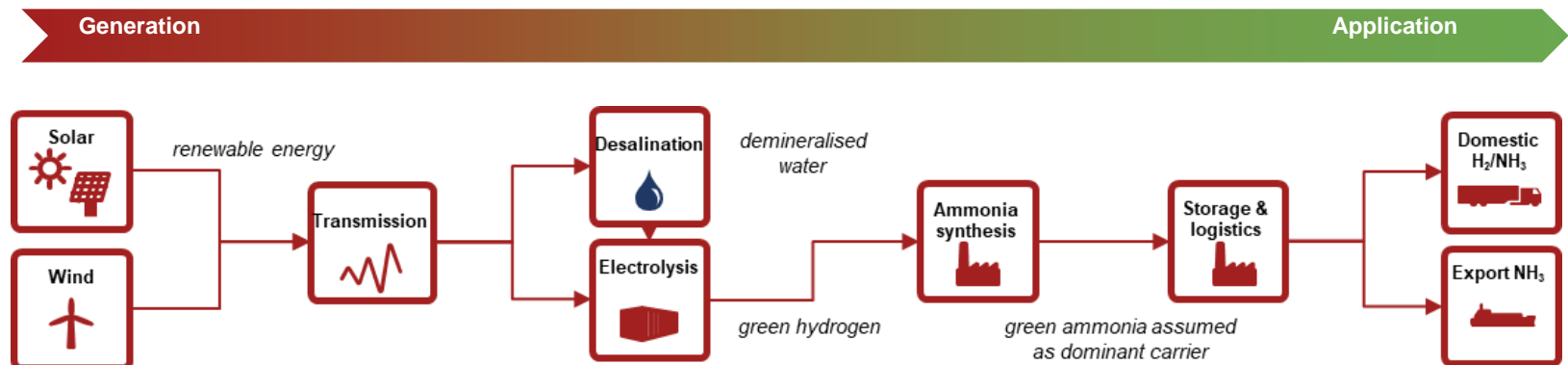
1. **Enablement** (improve the near-term business case)
2. **Acceleration** (facilitate early movement)
3. **Cost reduction**
 - Cost of funding
 - Apply funding to cost reducing initiatives

Application:

- Earlier conversion from grey to green
- Feasibility studies for pilot & commercial projects
- Infrastructure PPPs (grid-capacity)
- Technology adaptation
- Knowledge enhancement
- R&D in value chain technologies
- Education & training
- ... and more ...

... Application

- Funding should focus on the enablement of the whole value chain ...





Typical funding types

1

Government Finance

2

Private Finance

3

Development Finance

Typical funding types

1 Government on-
balance sheet
finance



2 Private Finance

3 Development
Finance

• Direct public funding:

- Direct public funding includes an allocation of taxation revenue, budget surplus', borrowings globally etc. as a means of supplementing the financing requirements for a project to reduce the overall cost of financing

• Government has a strong role to play:

- developing strong relationships with the governments of developed countries;
- providing partial guarantees;
- providing blended concessional finance; and/or
- providing grants and/or subsidies to pilot projects.

• Possible innovative sources of funding for government to support the above objectives include:

- government-backed green bond;
- special, marginal levies on existing carbon fuel consumption which is applied to the movement towards greener fuels; and
- redirecting income from carbon taxes towards green initiatives.

Typical funding types

1 Government on-balance sheet finance

2 Private Finance



3 Development Finance

- **Traditional private sources of private finance such as**

- direct equity investments,
- lending by commercial banks,
- Institutional investors

- **Public-private partnerships:**

- Combining public and private sector involvement by partnering government with key private stakeholders, including
 - infrastructure developers,
 - renewable energy companies,
 - research institutions,
 - Technology providers,
 - vehicle manufacturers, and
 - infrastructure focussed private equity funds

Typical funding types

1 **Government on-balance sheet finance**

2 **Private Finance**

3 **Development Finance**



- **Leveraging funding from developed markets:**

- A number of larger, developed countries have set aside or have committed to setting aside funding specifically to support the decarbonisation initiatives of developing countries.
- Taking advantage of those additional pockets of funding will support the development of larger scale projects locally, which will enhance efficiencies and ultimately reduce pricing.

- **Leveraging funding from export credit agencies:**

- Export credit financing is often used to fund infrastructure projects (especially those in the developing world) in conjunction with, or as an alternative to, more traditional project financing.
- It enables project companies to obtain more flexible (and often cheaper) financing arrangements. In addition to financing, export credit financiers may also provide insurance, particularly political risk insurance that is either unobtainable or prohibitively expensive in the commercial market place, which incentivises investment by international financiers.

- **Blended finance mechanisms**

- Different instruments and approaches to crowd in private, commercial investment for development outcomes.



Conclusion

Given the size and complexity of the value chain and the anticipated scale of the green hydrogen economy in South Africa, financing green hydrogen projects will require innovative financing structures sourced from multiple local and international stakeholders