HGV financing models

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Abbreviations

The following is a list of abbreviations and associated definitions for terms appearing throughout this document:

Abbreviation	Definition
BET	Battery Electric Truck
EU	European Union
FCET	(Hydrogen) Fuel Cell Electric Truck
Fuel Cell	A device that reacts stored hydrogen with oxygen from the air to provide electrical power
GHG	Greenhouse Gases
HDV	Heavy Duty vehicle – road vehicle over 3.5T, e.g. HGV, buses, coaches and 'vocational' vehicles such as gritters, refuse collection vehicles
HGV	Heavy Goods Vehicle
LCF	Low Carbon Fuels
OEM	Original Equipment Manufacturers
PRG	Partial Risk Guarantee
RTFO	Renewable Transport Fuel Obligation
R&D	Research and Development
SME	Small and Medium Enterprises
SPV	Special Purpose Vehicle
TCO	Total Cost of Ownership
UK	United Kingdom
ULEV	Ultra Low Emission Vehicle
ZETs	Zero Emission Trucks
ZEV	Zero Emission Vehicle
ZERFD	Zero Emission Road Freight Demonstration

Definitions

Abbreviation	Definition
Bankable investment	An investment that generates sufficient profits and cash flows to meet obligations created by capital outlays.
Lessee	An individual or organisation who holds the lease of an asset.
Lessor	An individual or organisation who leases an asset to another.
Operator	The individual or organisation who will be using funds or financing mechanisms to operate the assets.
Senior debt	Borrowed money that a company must repay first if it goes out of business

1 Introduction

1.1 Purpose of this paper

The purpose of this paper is to provide the Taskforce with more detail on existing and potential future financing models related to the zero emission HGVs and associated infrastructure. This includes an overview of barriers and potential opportunities for public and private sector investment in HGV decarbonisation. In summary, the paper:

- provides an overview of the current financing models;
- provides an overview of the potential future financing models; and,
- outlines the challenges the financing models need to overcome, the benefits the new models will provide, and the role different stakeholders could adopt.

The Taskforce is asked to consider:

- **What business models are you already familiar with or using, and which ones are new to you?**
- **Having considered the papers, do you feel that the Taskforce should take action to enable and support long term financing? If yes, in what ways?**
  - **What factors enable access to long term financing and create an attractive proposition?**
  - **Conversely, what inhibits investment?**
  - **Is lack of information on residual value a major barrier? If so, how do we share that risk equitably?**
- **What is required for appropriate business models to become accessible to SMEs/ small fleets?**
  - **What understanding of and appetite for these models currently exists among SME operators? How might they be improved and by whom?**
  - **What barriers do investors/ leasing bodies perceive to investment in SME operators? How could these barriers be lessened?**
- **How can this group support better conversations between operators, OEMs and finance to understand and develop these new business models?**

1.2 Definitions and Assumptions

Zero-emission HGVs are defined as HGVs that have zero tailpipe (pump to wheel) greenhouse gas emissions at point of use. Embodied emissions associated with the creation, maintenance and disposal of vehicles, infrastructure and the production and distribution of energy (well to pump) are recognised as being important but are outside the scope of the Taskforce.

This paper explores the financing models that could be used to assist in the purchase of ZEVs and the corresponding public and private infrastructure required to operate them

1.3 Methodology

A mixed methods approach has been used to generate the evidence base for this paper. An initial review of published reports and policy positions was supplemented by interviews with representatives of selected stakeholders involved in the freight and logistics sector. Information from interviews has been anonymised where this is not already in the public domain.

2 Overview of current financing models

This section provides an overview of the current purchasing and financing models involved in the purchase of HGVs and infrastructure, spanning cash, debt, and equity, and discusses expected changes in the near-term future.

2.1 The need for new financing models

A successful and sustainable transition to electric vehicles requires the mobilisation of private capital. However, there is currently insufficient investment to transition all newly sold HGVs to zero emission by 2040 (Gov.UK). This is due to both supply- and demand-side issues in the financing of this new technology.

On the supply side, vehicle owners and operators have highlighted difficulties in securing affordable financing. Capital is too expensive, short dated, or does not flow sufficiently due to a mismatch in financier risk appetite and inadequate de-risking of investment opportunities (i.e., providing a strong enough business case / expected return on investments).

On the demand side, investors flag the lack of “bankable” opportunities (an investment that generates sufficient profits and cash flows to meet obligations created by capital outlays) and a limited pipeline of opportunities due to nascency of technology and high risk levels on investments. These issues are further exacerbated by policy/regulatory uncertainty, limited clarity and granularity on transition pathways, and a lack of data to inform decisions and track progress (WEF).

More detail on these issues can be found in section 4.1.

2.2 Current financing models

Buying a vehicle gives the owner complete control over its use, but it also means that responsibility for any depreciation, servicing, and repair costs sits with the operator. Therefore, due to the initial capital outlays being substantial to decarbonise vehicles and infrastructure and operators operating in a market with low margins, buying vehicles is not the most effective business model for most operators. Operators financing HGVs is common practice within the HGV industry.

The following analysis sets out some of the existing financing models available in the HGV market and those that have begun to emerge in recent years.

Existing financing models used for ICE and ULEV HGV

Hire Purchase

Description: An initial deposit for the asset will be paid by the operator and the remaining value of the asset plus interest will be paid off through monthly payments by the operator to the financier with the operator/owner responsible for road taxes, insurance, and maintenance. After the final payment is made the ownership of the asset is transferred to the operator. These can be structured to fit the cashflow needs of the operator by choosing between fixed and variable rates, offering the ability to reduce monthly payments by opting for a lump sum/balloon payment to transfer ownership to the operator ahead of the payment schedule and help align payments to reduce tax exposures as it may be possible to offset repayment interest against your business profits and claim back VAT.

Case study: Lombard in partnership with NatWest Group offer this solution for HGV owners and operators as part of their Green Asset Finance (Lombard). Asset Alliance Group also offer commercial hire purchase for those who wish to own the asset and assume all associated costs of maintaining the vehicle or trailer with partners such as Iveco and Gray Adams (AAG).

Operating leases

Description: The operator leases the HGV and parts of the infrastructure (i.e. chargers) if required from the owner (e.g. manufacturers, private investors, energy providers etc.), but ownership of the assets is not transferred to operators when the lease period ends. Additional upgrades to the depot for grid connection would need to be covered by the operator if electric vehicles are used.

There are two types of leasing agreements: a “dry” lease and a “wet” lease.

Dry lease - is where the lessor (financier) provides an HGV, but the lessee (customer/operator) will be required to make sure it has its own crew, maintenance, and insurance.

Wet lease - is where the lessor (financier) provides an HGV with taxes, maintenance and insurance included in the cost to the lessee (customer/operator).

Case study: Hyzon is offering a new product to enable customers in the European Union the ability to fast track their transition to hydrogen fleets by providing a lease product that includes the FCEV, hydrogen fuel, insurance, and service and maintenance for Hyzon and Hyzon-branded vehicles (Hyzon).

Finance leases

Description: Similar to an operating lease, the operator pays a regular lease payment to the vehicle and infrastructure owner. The difference is there are a number of options at the end of the primary lease period. The operator can 1) sell the asset to a third party acting on behalf of the owner and receive a rebate of rental costs equating to the majority of the sale proceeds; 2) the asset is returned to the owner to be sold; 3) the operator enters into a secondary lease period or a purchase agreement is arranged for an agreed residual value of the asset.

Case study: There are already a number of finance lease providers which offer products for HGV operators. Two notable financiers are Lombard and DAF.

- DAF trucks provides a financial lease contract whereby PACCAR Financial, their financiers, owns the vehicle and leases it to operators, when all rental payments have been paid, the vehicle can be sold to a third-party with a major part of the net sale proceeds being refunded to the operator by way of a rebate on rental fees (DAF).
- Lombard Finance Lease offers a payment plan tailored to customers' business criteria. After the end of the lease term customers receive an agreed percentage of the vehicle's resale value as the vehicle is partially owned by the operator in return for all the payments in the payment plan (Lombard).

Term loans

Description: A term loan is a monetary loan provided by a bank or financing institution to an operator that is repaid in regular payments over a set period of time to provide the upfront capital payment for an asset. Term loans usually last between one and ten years, but may last as long as 30 years in some cases. These loans can be taken out by operators to fund the purchase of new vehicles.

Case study: There are a wide variety of business term loan providers. IOWCA will provide businesses with up to £500,000 over a fixed period of time across a variety of terms and conditions (IWOCA).

Concessional loans

Description: The operator obtains a loan from a financing institution with more favourable lending conditions (as compared to the loans described above), for example lower interest rates and/or longer repayment schedules. Concessional loans can also be used as part of: 1) blended financing (e.g. co-funded with private investments or public grants; and, 2) manufacturers / financiers take out large-scale loans of their own to increase production/ purchase infrastructure or HGVs en mass which are then leased out to operators at more favourable rates / longer repayment schedules than could be received by an individual on their own. This is due to the

economies of scale on borrowing and production giving the manufacturer / financier lower interest rates and lower cost assets to lease out to operators.
Case study: The South Korean government is providing blended concessional financing for hydrogen refuelling stations and HGVs, providing a one-time grant of up to 60% of the funding cost for stations and 50% for vehicles. This then allowed more favourable rates or loan conditions to be provided by the private sector as lower levels of capital are required to be borrowed. (Macquarie).

Sales-and-leaseback (refinancing)

Description: Using the traditional form of this model, the operator would be assumed to already own the asset which it would then sell to a buyer to free up capital and then lease the very same asset from the buyer. It's unlikely however that ownership of zero emission HGVs is currently common amongst operators. Therefore, the applicability of this model could be from operators selling (refinancing) their existing diesel fleet (which they own) to a financier or manufacturer to help pay for zero emission HGVs.
Case study: Novuna Vehicle Solutions provides a sale and leaseback option whereby the residual value risk (the risk that the value of the asset at the end of its lease term or useful life is lower than expected) of the current ICE fleet is acquired by Novuna, which disposes of the vehicles through sale or scrapping the vehicle, providing capital to purchase a new zero emission fleet which is then leased back to the operators (Novuna). Zenith Intelligent Vehicle Solutions provides a solution where customers sell their vehicles to Zenith for an agreed price, following which Zenith will maintain the vehicles and lease them back to customers (Zenith).

Emerging financing models

Component leases

Description: The operator purchases the bulk of the vehicle (e.g. chassis, cab, and motor) but leases the most expensive (pain point) part of the vehicle, for example electric batteries, hydrogen fuel cells, and/or charging infrastructure.
Case study: PPL's, NEPO224 HGV & Specialist Vehicles Acquisition is a multi-supplier framework agreement giving options for UK public sector organisations purchase or contract hire components of vehicles or fund drivetrain conversions (NEPO).

Green bonds

Description: Bonds can be issued by governments, municipalities, financiers, or corporations and can be purchased by corporations, governments, and individuals through a broker to raise funding to support more traditional forms of financing such as loan arrangements for zero emission HGVs. This could become more prominent with the emergence of 'Green Investment Banks' and financers with 'ESG' focused portfolios.

Case study: Daimler launched its first bond to finance its new green framework in 2020 with the issuance arranged by BBVA, BNP Paribas, Commerzbank, Crédit Agricole, SEB and Unicredit. The bond raised 1 billion euros – money that was used to shift to a sustainable vehicle fleet and a sustainable production process. The capital within Daimler's green framework was earmarked to fund zero-emission vehicles, powertrains and charging infrastructure, as well as recycling systems for batteries and fuel cells and investments to reduce energy and resource consumption (Daimler).

Integrated End to End financing (battery/trucking-as-a-service)

Description: An integrated financing package/ solution, providing an asset or all necessary assets to the operator via a service model, where the operator only pays a fee for the availability and use of the asset(s), on a per mile/ km basis. The integration provider "bundles" the vehicle, battery (or fuel cell), and infrastructure assets into one package, typically including tax, insurance, and maintenance, and the operator pays a regular fee for use and access.

Case study: Volta Trucks currently offers a trucking-as-a-service model with Volta financing the vehicle and battery for customers, providing maintenance, insurance, and a warranty. Volta works with the customer to estimate distances per year and then calculate price per month based on a 6–8-year leasing cycle.

Hitachi Finance provides a battery-as-a-service offering whereby the battery (which has a shorter lifecycle than the vehicle) is supplied with a set residual value after the 6-8year lifespan of the battery. Hitachi Finance also provides the maintenance and service throughout the life of that battery.

Fraikin offers a full-service contract hire for an end-to-end fleet solution, including disposal. The asset is provided for a fixed period of time (usually 12 months to eight years) with a mileage allowance which matches a customer's specific transport requirements (Fraikin).

2.3 Changes expected in future policy

The "Green Finance Strategy" published in 2019 by the UK government set out a suite of ambitious policy commitments to help align UK financial flows with a low-carbon world (Greening Finance). It highlighted two key lines of effort:

1. **"greening financing"** i.e., aligning financial services to support net zero commitments through reporting and goal setting; and,
2. **"financing green"** i.e., mobilising private finance at scale to support clean and resilient growth.

UK government is looking to develop this further through:

- **Informing investors and consumers** – ensuring a flow of decision-useful information on environmental sustainability from corporates to financial market participants is available, such as the new economy-wide Sustainability Disclosure Requirements.
- **Acting on information** - creating expectations and requirements that sustainability information is mainstreamed into business and financial decisions, for example in risk management and investor stewardship.
- **Shifting financial flows** - ensuring that financial flows across the economy shift to align with the UK's net zero commitment and wider environmental goals.

Engagement with market stakeholders has highlighted that these changes are already starting to impact banks/ financiers' decision-making with more favourable lending conditions beginning to be provided to those looking to invest in green projects due to governmental, policy, and public perception pressures.

This is expected to continue, with regulations moving to further prioritise sustainability within organisations, enabling green projects to continue being pursued with preferential lending rates.

2.4 Current funding

Below are the current funding opportunities to aid operators in their transition to zero emission HGVs.

- **ZERFD phase 2**: The second phase Zero Emission Road Freight Demonstrator (ZERFD) is providing £200m funding to assist in the demonstration of 40-44T zero emission HGVs and the corresponding infrastructure (ZERFD).
- **Zero Emission Mobility Innovation Fund**: The Scottish Government is providing £28 million across the next four years to accelerate the manufacturing and deployment of heavy duty zero emission vehicles (Zero Emission Mobility Innovation Fund (ZEMIF) - Scottish Enterprise (scottish-enterprise.com)).
- **Plug-in Grant**: discounts are provided by the UK government for brand new low emission vehicles purchased from vehicle dealerships and manufacturers. Grants of up to £16,000 are available for small trucks and £25,000 for large trucks (Plug-in Grant).

- **Renewable Transport Fuel Obligation (RTFO):** provides support for fuel suppliers, independent verifiers, and others involved in the supply of 450,000+ litres of fossil and renewable fuels for use in relevant transport modes in the UK, and allows for the claim of a subsidy for supplies of sustainable renewable fuel (RTFO).

3 Potential future financing models

3.1 Role of financing models in the HGV decarbonisation pathway

New and innovative financing models are required to overcome the challenges that currently occur within the HGV decarbonisation transition. A mixture of modernised financing activities and de-risking business model measures are necessary to incentivise investments and accelerate the transition to ZEVs.

3.2 Outline of potential future finance models

The following analysis provides an overview of potential future financing models that could be employed to speed up the deployment of decarbonised HGVs and the corresponding infrastructure.

Potential financing models

Residual Value Guarantee
Description: The government, financier, or manufacturer uses grants or contractual agreements to guarantee a percentage / portion of the residual value of assets after the initial contract period and provide it to the operator.
Case study: Lombard, in partnership with Natwest, offers a Residual Value Lease as part of its Green Asset Finance, allowing fleet operators to acquire large commercial vehicles with less responsibility and risk on amounts from £25,000 to £10 million. The residual value of the vehicle is set from the start of the agreement leading to lower monthly payments in comparison to other solutions because product pricing is calculated based on anticipated value (Lombard).

Revolving Fund
Description: A revolving fund is typically used by the government to compel energy and utility companies to invest in energy efficiency. In this instance a principal financier (government or financiers) provides capital for investment in charging infrastructure and grid network connections for operators. Due to the energy supplier/ utility company being the main beneficiary of the improved efficiency of the infrastructure and increased energy demand from operators for electric fleets, they will repay the costs of the infrastructure and grid upgrade from the additional profits generated from the energy consumed. A proportion of the margin earned by the

energy supplier / utility company is therefore paid to the principal financier until such a time as the principal financier is repaid or the terms of the agreement cease.

Example: A similar model has been used by the governments of the US, UK, and Thailand (Energy policy).

The US Clean Water State Revolving Fund that was established in the 1990s and has provided over 33,000 loans with a total value of over $100 billion (USEPA, 2015).

The Thai Energy Efficiency Revolving Fund that since its creation in 2003 has invested c$470m in 294 energy efficiency projects, mostly in factories (Gru¨ning et al., 2012).

The UK SALIX revolving fund that since its establishment in 2004 has invested £339 million in over 12,000 energy efficiency and renewable energy projects in the public sector with estimated fuel cost savings of £1.2 billion (SALIX, 2015).

Mezzanine Loan

Description: A financier provides a loan to the asset owner (e.g. operator, technology provider etc.). Should the asset owner default on loan repayments, the debt is converted into an equity interest in the operator company and is used when a buyer has exhausted its ability to take out senior debt (debt a company must repay first before it goes out of business). Mezzanine loans are predominantly invested in by pension funds, hedge funds, leveraged public funds, LPs and insurance companies (Investors).

Example: The European Investment Bank has used mezzanine loans and hybrid debt arrangements in the past in order to provide finance to innovative transport companies. It resulted in a high uptake from firms in the early stages of product development (EIB).

Partial Risk Guarantee

Description: A Partial Risk Guarantee (PRG) is offered by governments to reduce the probability of default and improve the lending conditions for operators through a reinstatement provision (the additional time provided to the operator to repay the funds in order to prevent default) that allows the government guarantee to be drawn to meet debt service payments during periods of operator illiquidity. Amounts drawn under the guarantee will then need to be repaid within a prespecified period to ensure they are reinstated for further use in times of illiquidity.

Case study: The World Bank and Asian Development Bank have rolled out a PRG to help infrastructure developers in eligible member countries cover the costs in the event the government reneges on its commitment either due to a change in the government or political agenda. The PRG guarantees a certain percentage of the

remaining cost of infrastructure to allow developers more time while it seeks for other ways of filling in the remaining financing gap (World Bank and ADB).

Demand Aggregation

Description: Government, industry bodies, or private sector companies aggregate demand across HGV operators and position this to financiers (once a minimum threshold in demand has been met), potentially with a cap on the maximum price operators are prepared to pay and the deals they require. The guaranteed demand could then incentivise financiers to offer attractive solutions.

This could be extended into a 'reverse auction' where the most attractive solutions from financiers are provided to operators registering an interest, allowing operators to decide which deal to proceed with.

Case study: In 2017/18 the World Resources Institute India (WRII) and the Confederation of Indian Industry (CII) demonstrated a demand aggregation model by combining solar panel procurement for Micro, Small and Medium Sized Enterprises in Aurangabad and Ahmedabad with costs being brought down by 10% and 15% respectively (WRII).

The Green Finance Institute is collaborating with the finance, manufacturer, retrofit, and legal sectors to accelerate Demand Aggregation Finance in the UK home decarbonisation sector, however a model has not been looked into for the HGV market (GFI).

4 Public and private investment opportunity

The following section outlines the challenges to future investment in the HGV decarbonisation space, the benefits that these financing models will provide to the HGV market and those operating within it, and the roles the different stakeholders in the market can play.

4.1 Challenges for future investment

Despite the announcement of a UK freight decarbonisation agenda which culminates in all new HGVs needing to be zero emission by 2040, innovative financing mechanisms are still required to kick-start uptake of zero emission HGVs (Gov.UK). This is due to various challenges that currently exist within the freight market, a number of which are set out below

- Cost disparity between the purchase price of zero-emission HGVs and diesel equivalents
- Large initial capital outlays for refuelling/ recharging infrastructure upgrades
- Slim operating margins for fleet and owner operators resulting in loss-making operating models if costs inflate marginally

- Unproven functionality of vehicles and lack of proven use cases for fuel types creating a lack of clarity in the future fuel mix
- Total Cost of Ownership (TCO) challenges arising from fuel costs in unpredictable energy markets
- Unproven residual value of assets
- Low utilisation rates and return on investment (ROI) expected in the near term for refuelling infrastructure
- Investment focusing on other international markets with extended government support for ZEVs leading to higher ROI, eg Germany
- Lack of skills and trained labour force in new zero emission HGV technologies

The resultant impact on HGV operators and infrastructure providers is that they are unable to receive credit at low enough repayment rates to provide sufficient return on investment.

4.2 Benefits of innovative financing models

The financing models discussed in sections 2 and 3 above have been provided as examples of ways to bolster private investment, providing more favourable terms to those looking to invest in a decarbonised fleet. These different financing models could provide a number of benefits to the market and wider society, including (but not limited to):

- Longer and cheaper leasing terms for asset owners, accelerating investment into transformative technologies and offering the potential for higher and more secured incomes for financiers.
- Allowing operators greater flexibility as they customise their financing mechanisms and business models to their expected cashflow.
- Providing opportunities for multiple stakeholders to collaborate to offer the best solutions possible through partnerships or joint ownership.
- Reducing market barriers to entry and de-risking investments to accelerate the transition to zero emission transport through cheaper sources of finance.
- Providing the means for financiers to move toward linking borrowing rates to sustainability metrics and therefore dispersing wider benefits throughout society.

Exploration of these opportunities could lead to industry stimulating sustainable private sector financing solutions for zero emission HGVs.

4.3 Opportunities to de-risk investments

There are a number of methods/opportunities that are beginning to be employed to de-risk investments and improve the funding terms of operators/owners. These could be applied alongside the financing mechanisms outlined above to further accelerate the deployment of decarbonised HGVs and its infrastructure.

Existing

- **Warranty and equipment guarantee from OEMs** – leading to credit enhancement and more preferable rates through risk mitigation of investments in new technologies.
- **Capital/ tax incentives** – UK government providing tax breaks / exemptions or preferential capital agreements for companies / operators investing in decarbonised HGVs and their infrastructure.
- **Carbon tax/ pricing** – further carbon taxes applied to ICE vehicles to disincentivise their continued use.
- **Provide clear availability and capability of fuel supply** – clearly outline DNO connections i.e. spare capacity, or H2 supply throughout the country to provide investors with clear line of sight on potential costs to invest in refuelling infrastructure.

Emerging

- **Shared/ partnership ownership models** – operators create a joint venture with other operators or investors for the purchase of vehicles or infrastructure to reduce their initial capital outlay and receive preferential loan conditions.
- **Portfolio approach** – HGV/ infrastructure providers evaluate their investments on the long-term returns received and therefore offset any expected short-term losses with enhanced long-term gains from first mover benefits and applied learnings culminating in competitive advantages.
- **Green objectives for organisations** – resulting in favourable rates for green investments as it is perceived to de-risk an organisation's future operating models and aligns to financiers' green objectives.
- **Green insurance –** insurers are offering preferable rates to those switching to low emission vehicles and infrastructure which will lead to credit enhancement through risk mitigation.
- **Provide independent verification and certification standards of technology** – standard setters provide clear and unified international regulatory standards with performance/safety assessments to de-risk investment and improve insurance certifications in new technologies.

4.4 Role of stakeholders in financing models

A number of stakeholders could play pivotal roles in financing and de-risking the HGV decarbonised transition. The table below outlines the different stakeholders that could play a role and the ways in which they could facilitate it.

green = financing mechanisms to aid investments from stakeholders

blue = de-risking mechanisms to aid investments for stakeholders

Type of institution	Stakeholder	Roles to aid in financing / de-risking investments
Private sector – financial institution	Banks	Debt financing (e.g. Term loans, bond issuance)
		Favourable rates for green investments
		Refinancing
	Alternative investors /asset owners	Mezzanine Loans
		Green/sustainability linked bond investments
	Insurers	Credit enhancement through risk mitigation
		Green bond investments
Private sector - industry	Fleet / HGV owners	Mezzanine Loans
		Shared/partnership ownership models
	HGV / infrastructure providers	Shared/partnership ownership models
		Portfolio approach – evaluating investments on their long-term contributions
		Providing warranties and equipment guarantees
	Fuel suppliers	Provide clear availability and capability of fuel supply i.e., DNO connections or H2 supply
		Utility model – fuel suppliers own infrastructure and recover costs from operators
Technical firms	Standard setters	Provide independent verification of technology
		Certification standards
		Provide performance/safety standards and assessments

Type of institution	Stakeholder	Roles to aid in financing / de-risking investments
Government / policymakers	Government	Capital expenditure grants
		Loan guarantees
		Capital / tax incentives
		Shared/partnership ownership models
		Contract for difference providing residual value guarantees
	Policymakers	Green mandates
		Carbon tax / pricing
		Green procurement requirements

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