The role of off-take agreements in the developing sustainable aviation fuel market

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BP strategic focus

Shift to gas and advantaged oil
Market-led growth in the downstream

Venturing and low carbon across multiple fronts
Modernising the whole group

IATA Alternative Fuel Symposium - November 2018
Advancing the energy transition

**Reducing emissions in our operations**
- **Zero**
  - net growth in operational emissions out to 2025
- **3.5Mte**
  - of sustainable GHG emissions reductions by 2025
- Targeting methane intensity of **0.2%**
  - and holding it below 0.3%

**Improving our products**
- Provide lower emissions gas
- Develop more efficient and lower carbon fuels, lubricants and petrochemicals
- Grow lower carbon offers for customers

**Creating low carbon businesses**
- Expand low carbon and renewable businesses
- $500 million invested in low carbon activities each year
- Collaborate and invest in the Oil and Gas Climate Initiative’s $1 billion fund for research and technology

**Advancing low carbon**
Our accreditation programme for lower carbon activities
A perspective on low carbon aviation

- The need for action on carbon emissions and climate change is increasingly urgent*
- The aviation industry has clear goals for carbon reduction, but a lot of challenges to achieving them
- Passengers are beginning to recognise the opportunity to fly more sustainably in some locations
- The whole industry has a role to play in driving the agenda

* IPCC 2018 report
The sustainable aviation fuel supply chain

Enabled by:
- Stable long-term policy
- Regulatory support
- New and improved technologies
- Customer and passenger engagement
Sustainable aviation fuel success factors

- Create scale
- Ensure flexibility
- Product quality assurance
- Certified GHG benefits
- Coalition approach
- Broad engagement to communicate the benefits
- Maximise value across the chain
Case study: Fulcrum BioEnergy investment

- $30m invested in Fulcrum BioEnergy in 2016 through BP Ventures
- Broad partnership across multiple aspects:
  - Long-term off-take agreement across multiple plants
  - Supply chain partnership
  - Fischer-Tropsch technology licence
Case study: collaboration with Neste

- Initial product supply from Neste to Air BP under ITAKA project in 2015
- Collaboration agreement signed in September 2018
- Focus on developing advantaged supply chains into airports to enable growth in the use of sustainable aviation fuel
Drivers for long-term off-take agreements

Can be a crucial enabler for project developers and growing companies to access project finance and other investment
• Creates confidence in future cash flows for plant owners

A means of ensuring access to strategically important products for fuel suppliers and end-users
• Projects with new technology carry delivery risk, so a portfolio approach is important
• Value is maximised through efficient integration to existing infrastructure and supply chains
Conclusion

• To achieve the industry’s ambitious emissions targets requires a concerted effort right across the value chain

• Off-take agreements can play a role in the development of the industry, supporting new companies and new technologies to establish production

• Efficient integration to existing airport supply chains is important to maximise value
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