Scaling Sustainable Aviation Fuels
Investments in new production capacity
Maarten van Dijk
Managing Director – SkyNRG
Agenda

- Carbon challenge aviation & Sustainable Aviation Fuel
- SkyNRG
The carbon emission challenge for aviation is serious
And options are limited

CO₂ reduction measures for aviation 2020-2050

1. Improve fleet fuel efficiency by 1.5% per year until 2020
2. Cap net emissions from 2020 by carbon neutral growth
3. By 2050, net carbon emissions will be halved vs 2005 levels
Sustainable Aviation Fuel is key to decarbonize the sector

**CO₂ reduction measures for aviation 2020-2050**

- Efficiency improvements alone are not sufficient
- SAF is essential to achieve the targets
- 2050 volume: >250M ton SAF needed

1. Improve fleet fuel efficiency by 1.5% per year until 2020
2. Cap net emissions from 2020 by carbon neutral growth
3. By 2050, net carbon emissions will be halved vs 2005 levels
Today, there is only one plant in the world continuously producing SAF
Up to now SAF has been a voluntary market, but change is coming

<table>
<thead>
<tr>
<th>Country</th>
<th>Current</th>
<th>Future</th>
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</thead>
<tbody>
<tr>
<td><strong>European Union</strong></td>
<td>Voluntary opt-in for SAF under RED II, incentivized with multiplier (x1.2)</td>
<td>Sweden Mandate discussion ongoing: 2021 – 0.8% CO₂ emission reduction 2030 – 27% CO2 emission reduction</td>
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<tr>
<td><strong>Norway</strong></td>
<td>Mandate in place: 2020 – 0.5% from advanced feedstock 2030 – 30%</td>
<td>Finland Mandate discussion ongoing: 30% in 2035</td>
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<td><strong>United States</strong></td>
<td>SAF generates RIN credits under RFS2</td>
<td>Spain Mandate discussion ongoing: 2% in 2025</td>
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<td><strong>Indonesia</strong></td>
<td>2% mandate in place, not enforced</td>
<td>France Mandate discussion ongoing: 2% in 2025</td>
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<td><strong>United Kingdom</strong></td>
<td>Feed-in tariff under RTFO</td>
<td>Netherlands Mandate discussion ongoing: 14% in 2030</td>
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<td><strong>ICAO</strong></td>
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<td>ICAO Considering SAF as mitigation option under CORSIA</td>
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<tr>
<td><strong>Canada</strong></td>
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<td>Canada Considering multiplier for SAF under CFS</td>
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Agenda

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SkyNRG was founded in 2009 to help make the market for Sustainable Aviation Fuels
Today, we are the global market leader

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>2009</td>
<td>Foundation of SkyNRG</td>
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<tr>
<td>2010</td>
<td>KLM Corporate BioFuel Program</td>
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<tr>
<td>2011</td>
<td>SkyNRG supplied most commercial SAF flights to date</td>
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<tr>
<td>2012</td>
<td>Continuous supply</td>
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<tr>
<td>2013</td>
<td>Shell partnership</td>
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<tr>
<td>2014</td>
<td>SFO deliveries</td>
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<td>2015</td>
<td>RSB certification</td>
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<td>2016</td>
<td>Dutch Airforce F16 Squadron</td>
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<td>2017</td>
<td>Announcement DSL-01 facility</td>
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<td>2018</td>
<td>Long term, continuous SAF supply to KLM at LAX</td>
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<tr>
<td>2019</td>
<td>Strategic partnership to advance use of SAF</td>
</tr>
<tr>
<td>2020</td>
<td>Structural supply of SAF at SFO to KLM, SAS &amp; Finnair</td>
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Our Sustainable Aviation Fuel business has two core focus areas, which we have divided into 2 x 2 business units.

**SHORT TERM**
Supply & operations

provide a one-stop shop for sustainable aviation fuels, delivered into wing

**LONG TERM**
Market development

develop regional supply chains that convert local feedstock into cost-competitive sustainable aviation fuels

- **Sales & Supply**
- **Customer programs**
- **Future Fuels**
- **Direct Supply Lines**
Direct Supply Line: dedicated SAF production capacity

**SHORT TERM**
Supply & operations

- provide a one-stop shop for sustainable aviation fuels, delivered into wing

- Sales & Supply
- Customer programs

**LONG TERM**
Market development

- develop regional supply chains that convert local feedstock into cost-competitive sustainable aviation fuels

- Future Fuels
- Direct Supply Line #1
Location & plot lay-out DSL-01: Chemport in Delfzijl
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