PORT OF ROTTERDAM: LEADING THE FEEDSTOCK TRANSITION

SCALING UP LOW EMISSION FUEL SUPPLY (IEA WORKSHOP OCT. 4TH, 2023)

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Programma Manager Renewable Fuels & Chemicals
PORT OF ROTTERDAM FACTS
ENERGY HUB & BIO FUELS CLUSTER

- 42 KM PORT AREA
- 4 CRUDE OIL REFINERIES
- 45 PETROCHEMICAL COMPANIES
- 4 VEGETABLE OIL REFINERIES
- 3 BIOFUEL PLANTS

LARGEST EUROPEAN PORT & BUNKER HUB

2.5 Mton Production
12 Mton Throughput
RESULTING IN EUROPE'S LARGEST BIOFUEL CLUSTERS

469 MILLION TONNES OF FREIGHT THROUGHPUT IN 2021

CURRENT HYDROGEN PRODUCTION 0,4-0,5 MTON

13% OF TOTAL EU ENERGY CONSUMPTION PASSES ROTTERDAM

GATEWAY TO A MARKET OF 440 MILLION CONSUMERS

LARGEST EUROPEAN PORT & BUNKER HUB

30,000 SEA-GOING VESSELS PER YEAR

100,000 INLAND VESSELS PER YEAR

565,000 DIRECT & INDIRECT JOBS

14 June 2023
THE ENERGY TRANSITION STRATEGY CONSISTS OF 4 PILLARS

<table>
<thead>
<tr>
<th>PILLAR 1</th>
<th>PILLAR 2</th>
<th>PILLAR 3</th>
<th>PILLAR 4</th>
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<tbody>
<tr>
<td>EFFICIENCY AND INFRASTRUCTURE</td>
<td>A NEW ENERGY SYSTEM</td>
<td>A NEW RAW MATERIALS AND FUEL SYSTEM</td>
<td>SUSTAINABLE TRANSPORT</td>
</tr>
</tbody>
</table>

-55% CO₂ IN 2030

CO₂-NEUTRAL IN 2050
AMBITIO: 8.2 MTON RENEWABLE PRODUCTION IN 2030
= 20% of fuel and chemical production 2019

2019

9.6 Mton

42.4 MTON

1.2 Mton

Transport fuels

Feedstocks for chemical processing (Napthta)

Other oil products

2030

Renewable fuel & chemical production

8.2

1.9 Mton Naphtal

6.3 Mton Fuels

2022 2030

RESULTS

€10 billion Private investments

26 Mton CO2-reduction
OVERVIEW OF CIRCULAR ACTIVITIES IN THE PORT AREA

Selection of publicly announced Projects until 2030. More to come.

<table>
<thead>
<tr>
<th>VOLUME IN Mton</th>
<th>CO₂-REDUCTION IN Mton (SCOPE 3)</th>
</tr>
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<tbody>
<tr>
<td><strong>Existing</strong></td>
<td></td>
</tr>
<tr>
<td><strong>2.3</strong></td>
<td><strong>7.2</strong></td>
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<tr>
<td><strong>FID taken</strong></td>
<td></td>
</tr>
<tr>
<td><strong>2.1</strong></td>
<td><strong>6.7</strong></td>
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<tr>
<td><strong>Planned</strong></td>
<td></td>
</tr>
<tr>
<td><strong>2.8</strong></td>
<td><strong>7.5</strong></td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
<tr>
<td><strong>7.2</strong></td>
<td><strong>21.4</strong></td>
</tr>
</tbody>
</table>
POLICY IS DRIVING LOW EMISSION FUELS UPTAKE

Throughput of renewables in tankers,
Source: Notifications of hazardous cargoes
Let’s connect!
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