Since 1983, National Energy Logistics Association

Sustainable mobility challenges for the transition targets

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2021, December 15
ASSOCOSTIERI, established in Rome in 1983, has a central role for companies working in the energy logistics sector.

It represents terminals, coastal, customs and tax tank storage facilities of mineral oils, chemical products and LPG, companies operating in biodiesel sector, small scale LNG terminals and LNG regasification terminals, companies operating in the marine bunkering service.

The Association carries out a continuous and proactive work of accreditation of its members and their issue of interest among the engaged stakeholder groups.

ASSOCOSTIERI protects the needs of the Associates in the institutional, political and technical seats at a national, European and international level, which are competent in terms of energy logistics and biofuels.

It’s member of the following Federations and Associations:

- Concommercio - Imprese per l'Italia
- Contrasporto
- Confmare
- European Biodiesel Board
- Biofuel Platform
- CUNA - Commissione Tecnica di Unificazione nell'Autoveicolo
- CTI - Italian Thermotechnical Committee
- WEC - World Energy Council
- NGVA Europe
- Consiglio Nazionale della Green Economy
Energy logistics plays a particularly important role for Italy, characterized by a strong dependence on imports, which guarantee 87% of the gross energy availability for petroleum products (including other energy sources, the share of net imports compared to gross energy availability is 73%).

Coastal logistics, consisting of storage facilities that receive the product by sea and send it to the secondary distribution network, is essential to guarantee the security of supply and the competitiveness of the country system, opening the market to a multiplicity of actors and therefore not being dependent on a single subject from which to import the products.
Crude oil extraction

Crude Oil Storage and Transport

Transport of refined products

Storage of refined products:
Primary Logistics
Coastal Deposit, Fiscal, Customs

Storage of refined products:
Secondary Logistics
Commercial Deposits, Distribution «Extra Network»

Distribution network

ENERGY LOGISTIC INFRASTRUCTURE: THE OIL SUPPLY CHAIN
ENERGY LOGISTIC INFRASTRUCTURE: THE ROLE OF LNG

LNG Supply Infrastructures
- Onshore LNG tanks
- Onshore LNG terminals
- LNG truck loading station

LNG Bunkering options
- Truck-to-ship
- SLC-to-truck

LNG received as fuel
- Industry
- LNG fuelled trucks
- LNG fuelled vessels
- LNG Bunkerbarge
- Mini LNG Carriers
- LNG Regasification Terminals
- LNG fuelled vessels
- LNG received as fuel
Current energy flows highlight the preponderance of petroleum products in the transport sector. Biofuels and natural gas (such as CNG and LNG) contribute less.
Energy flows by 2050 will be characterized by a more complex situation, with a strong presence of biomass fuels, including biomethane and bioLNG, and green hydrogen, produced thanks to a strong increase in electricity production and partly converted into synthetic methane gas (power to gas) or other bioliquids (power to liquid). Note the use of sequestered CO2 for the production of bioliquids (CCS) or its segregation (CCS).
The maritime and aviation sectors do not currently have renewable components in the energy mix. Currently the energy mix of maritime transport, in our projections for 2021, sees a coverage of 23% of diesel, an increase of 39% compared to the previous year, and of fuel oil for the remaining 75%. LNG still covers only a residual part of 0.2%. The aviation sector is bound only to jetfuel and aviation gasoline.

<table>
<thead>
<tr>
<th>Fuel</th>
<th>2019</th>
<th>2020</th>
<th>2021*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel oil</td>
<td>512</td>
<td>558</td>
<td>716</td>
</tr>
<tr>
<td>Heavy fuel oil</td>
<td>2,605</td>
<td>2,356</td>
<td>2,286</td>
</tr>
<tr>
<td>Lubricants</td>
<td>30</td>
<td>26</td>
<td>25</td>
</tr>
<tr>
<td>LNG</td>
<td>0,15</td>
<td>2,1</td>
<td>5</td>
</tr>
<tr>
<td>Sum</td>
<td>3,147</td>
<td>2,940</td>
<td>3,032</td>
</tr>
</tbody>
</table>

Consumption for marine bunkering in ktonn

Biomethane and bio-LNG, already available for road transport, offer significant environmental benefits. Assessing the environmental impact following an LCA (Life Cycle Assessment) approach, natural gas, in the light road transport (CNG) sector, assuming a 41% mixture of biomethane, offers lower GHG emissions than an electric car, while applying the emissions related to electricity obtained from an energy mix provided by the PNIEC. Domestic production has gone from 50 million cubic meters in 2019 to 99 in 2020.

Source: GREEN, Università Bocconi - : MITE - Relazione annuale situazione energetica nazionale dati 2020
**ASSOCOSTIERI'S PROPOSALS: THE AXIOMS**

- **Technological neutrality** - Once climate and environmental objectives are set, a neutral approach must be adopted that allows the best technologies to compete.
- **Energy mix** - It is necessary to pursue a varied energy mix to enhance the contribution of each renewable source.
- **Life Cycle Assessment** - the only objective method of assessing and quantifying the environmental value of different technological solutions and energy carriers.
- **Transition sources** - It is necessary to support transitional energy sources, enhancing the contribution of vectors already improving compared to traditional fossil fuels, and planning a transition period sufficient for the gradual takeover of biofuels and e-fules. An immediate phasing-out of all fossil fuels would mean a step backwards.

**FIT FOR 55 PACKAGE**

- **AFIR (AFID review)** – Extending incentives for LNG infrastructure.
- **RED III** – Giving the right weight to LNG and biomethane.
- **Energy Taxation** – Avoid equating gaseous fuels with traditional fossil fuels.
- **Internal combustion engine** – Safeguarding know-how and use with bio-fuels.
To pursue the reconversion of the strategic infrastructures of energy logistics towards renewable energy sources, some immediate actions are mandatory:

- **FAST TRACK** - Administrative procedures with simplified and fast procedures
- **CENTRALIZATION** of competences for authorizations (single authorization and environmental assessment)
- **RECLAMATION** - Dealing with the issue of land and water reclamation
- **REGULATORY PLANS** - Addressing the issue of port master plans
Thanks for your attention