

**Provisions on shore-side electricity in the proposal for a Directive on the deployment of  
alternative fuels infrastructure (COM(2013) 18 final  
currently discussed in the European Parliament and the Council**

**T&D Europe<sup>1</sup> Position Paper**

Brussels, 4<sup>th</sup> July 2013

**The challenge**

**Ports are key in the global transport network** as ships account for 90% of the world's commercial goods transports. **To keep a leading role in the global trade** and face growth of Asian ports (only 4 European ports are currently on the top 20 container ports) European ports need to invest in infrastructure to compete. Moreover, ports are **key for the tourism market**. Europe is the second most attractive market for cruise tourism. To keep its leadership in this field, Europe needs to promote passengers (cruise and ferry) ports infrastructure but also the condition of the air around these areas to preserve their attractiveness

Nevertheless, **Shipping is a major cause of harmful air pollution in Europe**. For example, by 2020 emissions of NOx from shipping could exceed the emissions of these pollutants from all other sources in the EU. The impact of pollution is highly dependent on the proximity of the emission sources. In harbour cities, ship emissions have become a dominant source of urban pollution and need to be addressed, in particular when considering fine particulate matter (PM) emissions. Indeed, those emissions can induce asthma, bronchitis and heart failure. Recent studies (*Assessment of Health Cost Externalities of Air Pollution at the National Level using the EVA Model System, March 2011, Brandt et al<sup>2</sup>*) show that emissions from international **shipping cause the premature deaths of about 50000 people/year in Europe** with an **annual cost for society estimated at €58B** and could represent 12% of total health costs by 2020 if no action is taken. Moreover, the level of PM emissions in harbour areas reaches limit that blocks future investments;

**The solution**

There are currently several technological alternatives to reduce shipping emissions: LNG, scrubber and shore-side electricity.

**T&D Europe supports shore-side electricity**. This technology enables ships at berth to plug into the national grid and so to shut down their engines, eliminating noise, vibration and air

<sup>1</sup> T&D Europe is the European Association of the Electricity Transmission and Distribution Equipment and Services Industry, representing the European manufacturers of technology and providers of service solutions for the transmission and distribution of electricity in Europe and globally. We are actively engaged with the development of the EU energy policy, the completion of its 20/20/20 objectives for 2020 and the preparation of a strategy for 2050. The companies represented by T&D Europe account for a production worth over Euro 25 billion, and employ over 200,000 people in Europe.

<sup>2</sup> <http://www.atmos-chem-phys-discuss.net/13/5923/2013/acpd-13-5923-2013-print.pdf>

pollution. It is a standardized technology which is ready to market. The main advantages of this system, compared with other alternatives are presented below:

- Environmental:
  - Shore-side electricity is the **only solution to cut all ships' emissions** in ports when berthed: VOC, SO<sub>x</sub>, NO<sub>x</sub>, CO, CO<sub>2</sub>, PM, N<sub>2</sub>O, CH<sub>4</sub>.
  - **Shore-side electricity is cleaner than LNG or scrubber for berthed ships. It completely eliminates emissions in NO<sub>x</sub>, CO, CO<sub>2</sub>, N<sub>2</sub>O, which LNG does not. LNG even increases CH<sub>4</sub> emissions. CH<sub>4</sub> has a 25 times higher global warming potential than CO<sub>2</sub>.**
  - **Both LNG and scrubbers have no impact on noise and vibration reduction.**
  - Scrubber technology cannot reduce several emissions simultaneously.
- Financial:
  - Shore-side electricity is the most cost-attractive solution as regards retrofitting ships (500K€ to 1M€/vessel)
  - From a port perspective, shore-side electricity merely requires the extension of existing infrastructure, while LNG requires the creation of entirely new logistics and infrastructure.
  - Shore-side electricity does not require regular maintenance like scrubber technology that needs to change consumable materials (filters, chemicals...).
  - Shore-side technology allows engine maintenance during stay at the ports with an easy access to every spare part from onshore.
- Standardization
  - A **global Standard ISO/IEC/IEEE 80005-1** has been validated since August 2012, enabling a **worldwide deployment**.
- Synergies with European Energy vision
  - Shore-side electricity aligns with the renewable energy policy adopted in the EU as it is the most efficient way to energize berthed vessels with renewable energy.
  - Power reception points from offshore wind farms are in most cases close to harbour areas, meaning minimum transport length.

#### **Comments on the Directive proposal**

In the light of the above, T&D Europe supports the alternative fuel directive in principle.

In particular, T&D Europe supports Article 4.5:

*Article 4.5*

*Shore-side electricity supply for maritime and inland waterway transport shall comply with the technical specifications set out Annex III.1.3 by 31 December 2015 at the latest.*

T&D Europe is in favour of modifying Article 4.4 in order to ensure a level-playing field between all alternative technologies that reduce shipping emissions.

*Article 4.4*

*Member states shall ensure that shore side electricity supply for waterborne vessels is installed in ports provided that is cost-effective and has environmental benefits berths **within 3 km of residential/living and shopping/commercial areas for ships requiring more than 1 MVA, and in all cruise ships and ferry terminals, by 31 December 2020 at the latest.***