



Addressing APVs safety challenges at international level

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2.1 Safety & Security





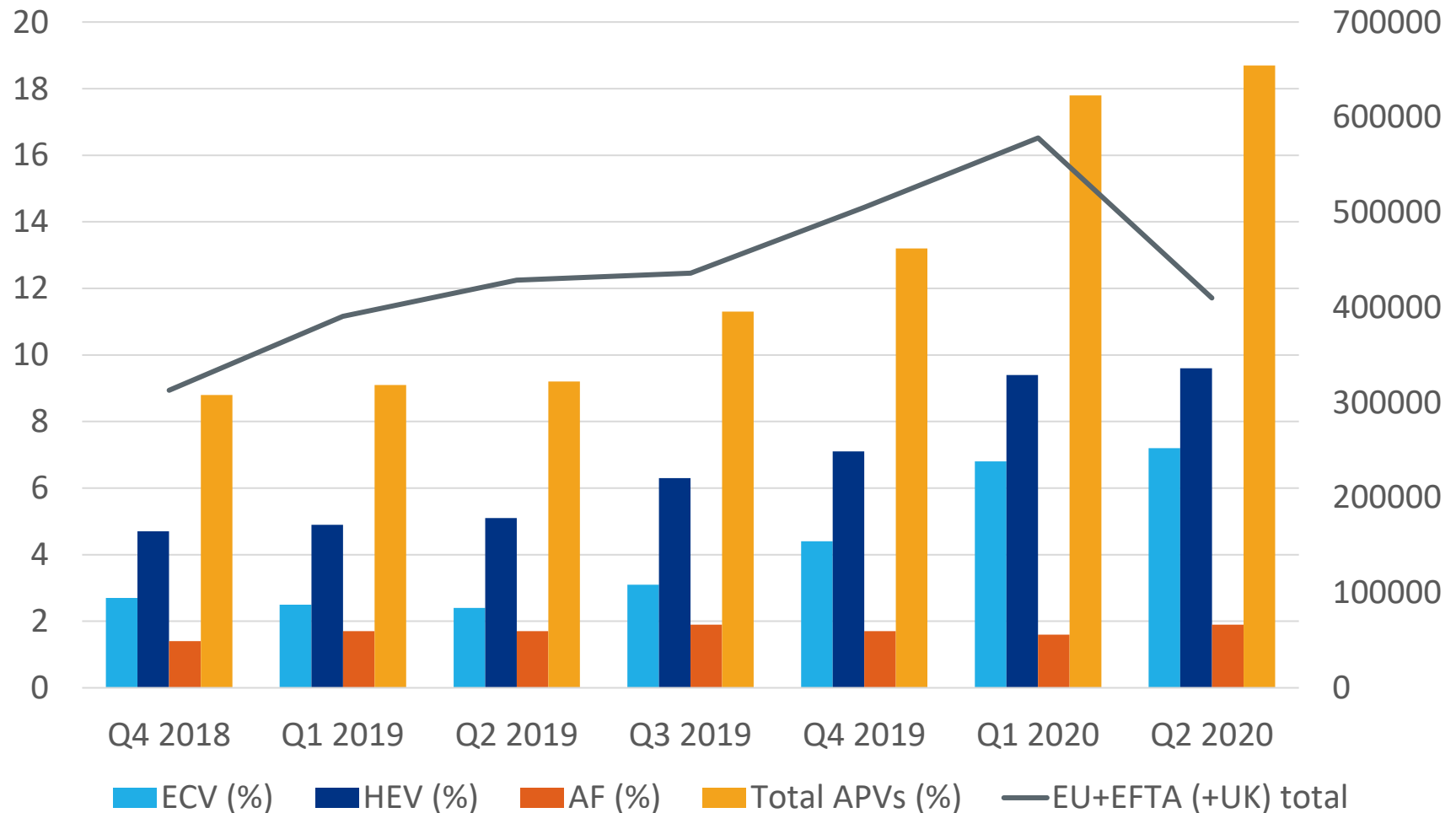
Our fear:

“Norwegian airport parking garage fire torches hundreds of cars, grounds flights” (January 2020)

Fire not started on an APV

Norway the largest concentration of electric cars per capita

New passenger car registration by fuel type



- **SSE 2/INF.3 (2015) – MSC 96/INF.3 (2016) by Germany**
- **MSC 97/19/3 by EU MS and EC – New agenda item**

- **FIRESAFE studies**
 - **FIRESAFE I - touched upon the issue in part 1 “electrical fire as ignition risk”, however based on FSI 21/5 (2012);**
 - **FIRESAFE II – No specific focus on APVs, considered on some issues in HAZID, except from WP3***

***Section 9: Specific hazards associated with APVs**

- **Adopted Interim Guidelines (MSC.1/Circ.1615) stipulate:**
 - Appropriate cable protection and maintenance;
 - Connection/disconnection by *“trained personnel or other persons under the supervision of ship's crew”*
 - *“During voyages when vehicles powered by compressed natural gases or hydrogen are carried, the hazards associated with accumulation of flammable gases and gases lighter than air under ceilings need to be addressed.”*
 - *“The company should establish a fire-fighting plan that, in particular, identifies any risks specific to alternatively powered vehicles, [...]. The company should ensure adequate training and good access to any specialized fire-fighting equipment for alternatively powered vehicles.”*

- **SSE 7/INF.11, SSE 7/6/6 and SSE 7/6/7 (China)**
 - Focus on detection (type and video monitoring), gas extinguishment, cars with batteries loaded in different areas, unless charging is “safe” charging shall not be permitted and additional fire/fighters outfits and definitions

Result: the Sub-Committee

- **did not support the proposals contained in documents SSE 7/6/6 and SSE 7/6/7 and**
- **agreed “*that a new output to address safety concerns on new types of vehicles, such as battery powered vehicles and alternatively fuelled vehicles, would be required.*”**

- **A new output needed;**
- **What should be the objective**
 - **SOLAS amendments? Earliest entry into force in 2028.**
 - **Interim Guidelines? To take into account research results.**
 - **EU / IMO?**



- What should be the priority from a regulatory point of view? (non-exclusive options)
 - A. SOLAS amendments only;
 - B. IMO Guidelines;
 - C. EU Guidelines;
 - D. Do nothing.

- **APVs – emerging risk;**
- **Research needed for informed decisions and rulemaking;**
- **Rulemaking process might be lengthy;**
- **APVs (in particular ECVs and HEVs) are already here.**

