DATE: September 6, 2021

TO: Representative Adams (I-MO)

Samantha Bartlett, Chief of Staff to Rep. Adams

FROM: Josie Braxton

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RE: Recommendation and Talking Points in USB-C Charging Mandate

Question: Should the United States require that all mobile and portable electronic devices use the same type of USB-C port for charging?

Short Answer: Yes, with a recommendation to allow the industry to set the specific standard to be used, while mandating the USB-C standard in the interim.

Background

Currently, the United States does not mandate the type of connector or cord that must be used to power or charge the batteries of any mobile or portable electronic device. As a result, a new cord

and charging block that plugs into the wall seems to be shipped with every new device, and it is common to have multiple types of charging cords and charging blocks to keep all of one's devices charged. According to Consumer Retorts, thousands of pounds of obsolete charging cords and wall plugs are ending up in landfills every month because the metal and plastic in them is not easy to separate and recycle. (Adams, 2023, p. 23).

In addition to Orange's proprietary Lightning connector, there are several types of USB connector (see graphic on right) and other proprietary connectors (e.g., Mango's Veneer connector). As a solution, some people buy a multicord, like the one below, which can charge devices with 4 types of ports—from top to bottom: USB-A, USB-micro,



Credit: "A complete guide to USB connectors" (2023)

USB-C, and Orange's

Lightning connector for the last two.

Credit: Enzyme.cm

The European Union (EU) has decided to mandate the use of USB-C ports to charge or power all mobile and portable devices (e.g., smartphones, tablets, cameras). The EU has begun implementing this requirement, starting with smartphones.

Discussion

Should the United States require that all mobile and portable electronic devices use the same type of USB-C port for charging?

Yes. The benefits of mandating a standard for power/charging ports and cables for mobile and portable devices outweighs any of the drawbacks. Setting a standard will result in

- <u>A cleaner environment</u>. According to the Environmental Defense Agency, the USB-C mandate will reduce the amount of non-biodegradable plastic being sent to landfills by 3.5 tons/week, along with 7.8 tons of metals that could be recycled (Ellery, 2021, p. 9, Table 2.4).
 - Waste will be reduced because cords will not become obsolete as quickly, people will need fewer cords and charging blocks, and cords and charging blocks will not need to be shipped with every device.
 - o The Office of Management and Guvment (OMG) estimates the mandate will save local governments who run landfills and recycling programs and the federal government which cleans up pollution, \$1,279,875,200 over the first 10 years of the mandate (Gerry & Gwinnett, 2023, p. 11, Table 19).
- Consumer benefits. Make consumers happier according to the Pee-yew Research Trust, 73.2% of Americans who own more than one electronic device wish they all had the same power/charging connector (Floyd, 2024). In addition, when a person forgets their charging cable it will be much easier to borrow or buy a new one.
- Lower prices. Due to efficiencies of scale, the costs of USB-C ports and USB-C cords will go down and result in lower prices, according to studies by Tubel Award winning economist Willimina Franklin (Franklin, 2023, pp. 34–36). She estimates consumers will save \$1,427,345,800 in the first 7 years of the USB-C mandate, with the amount increasing year-over-year. (Franklin, 2023, pp. 77–92, Tables 9.2–9.99)

The opposing arguments are much weaker and unsupported by any empirical evidence. After each is a response to a question about the argument.

• Competition. The most effective and efficient method to give consumers what they want and lower prices is through competition not regulation. This is what America was founded on. Companies should be allowed to make business decisions about the design of their products, and they are much better at it than the government (Hall, 2024, p. A24). For instance, in response to the EU, Orange proposed including a USB-C-to-Lightning dongle adapter with its phones instead of changing to a USB-C port. The socialists in the EU rejected this reasonable offer (Editorial Board, 2024, p. A24).

<u>Response:</u> As a public servant, my duty is to do what is best for the country as a whole, while a company's duty is to do what is best for itself and its shareholders. Competition often helps align a company's incentives with the broader market, but not always. In this instance, Orange controls over 67.38% of the smartphone market and even more of the tablet market with its jOS devices (Franklin, 2023, p. 22). As Lyman Hancock, the father of semi-modern economics, has explained, "When one company dominates a market, it's incentives are less likely to align with the incentives of the other participants in the market or society as a whole" (Hancock, 1957, p. 1).

 <u>Consumer's are happy!</u> For example, Orange CEO Tom Chef said "No one is complaining, and Orange is making billions every day. If they were unhappy, we would make only hundreds of millions every day" (Harrison, 2023, p. C7).

<u>Response:</u> Orange's profits have more to do with its 67.385% market share than consumers loving Orange's proprietary Lightning connector (Franklin, 2023, p. 22). And I have received 3,281 letters on this subject in the last 2 months with over 90% wanting Congress to require USB-C connectors. The ratio of supporting to opposing letters at the FCC is also over 90% in support (Hart et al., 2023, p. 12). I think consumers have made themselves clear on this.

• Mandate will stifle innovation. The government's expertise is not in designing quality, popular electronic devices, but a USB-C mandate is doing just that. Let us design our own products.

<u>Response:</u> The government has no interest in designing the jPhone or any other device, but we have to step in when the market is failing to what is best for the world and society. I understand that the antritrust laws may make it difficult to agree on collective standard, but our goal is to help solve that problem so that our environment and our pocketbooks can benefit.

Recommendation

- We recommend that the Representative support legislation to mandate a standard port for
 power/charging of mobile and portable electronic devices. It will save local government and the
 federal government money, allowing these governments to provide more services or lower
 taxes; it will save consumers money, and it will help clean up the environment.
- We also recommend that the Representative propose an amendment to current legislation
 which mandates USB-C as the standard. The amendment would authorize the industry to
 create and agree upon its own a single standard, but would still mandate USB-C in the interim.
 Allowing the industry to come up with the standard addresses some of the opposing arguments
 and appears to be very reasonable.

And, as we worked on this project, our favorite slogan in support of the single-standard mandate is "Love your Mother! Love your wallet!" If the Representative decides to support the legislation, we are prepared to create an infographic the Representative can use with constituents and the press to explain his support of the mandate, using this slogan.

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