



January 27, 2010

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

- Re: Reply Comments — NBP Public Notice # 30 – *A National Broadband Plan for Our Future*, GN Docket Nos. 09-47, 09-51, 09-137

Dear Ms. Dortch:

OneChip Photonics, Inc. (“OneChip”) respectfully submits Reply Comments for the Commission’s consideration in crafting *A National Broadband Plan for Our Future* in response to the Commission’s Public Notice.¹ OneChip seeks to stress the importance of promoting innovation and investment in technologies necessary for the deployment of high capacity broadband infrastructure to meet increasing consumer demand for high-speed applications and increased Quality of Service (QoS). The Commission’s National Broadband Plan should recommend incentives for service providers to accelerate the build out of these networks.

OneChip is a privately held company, funded by venture capital, that develops and manufactures optical transceivers – based on monolithic Photonic Integrated Circuits (PICs) in Indium Phosphide (InP) – for access networks and other mass-market broadband applications. OneChip is fundamentally improving the way optical transceivers are designed and built by integrating all the passive and active optical components into a single PIC. This will bring about benefits such as lower manufacturing cost, higher reliability, as well as ultimately higher performance.² In so doing, OneChip is working to reduce service provider input costs.

¹ *Reply Comments Sought in Support of National Broadband Plan*, Public Notice, DA 10-61, released January 13, 2010.

² “OneChip debuts EPON transceiver line for FTTH,” *Lightwave*, September 2, 2009, found at <http://www.lightwaveonline.com/top-stories/OneChip-debuts-EPON-transceiver-line-for-FTTH-57655937.html>

In conjunction with creating the National Broadband Plan, the FCC commissioned two extensive studies of the US and international markets and transition policies to next generation architectures. Both of these studies highlight the pivotal role fiber technology could play in meeting our country's broadband goals. The report by the Columbia Institute for Tele-Information's Broadband in America ("*CITI Report*") remarked:

Perhaps most surprising is the commitment of the smallest, usually rural telephone companies to fiber deployment. As the research firm noted,

Both Verizon and the smaller Tier 3 ILECs say they continue to build [fiber] at a fairly strong pace, even during 2009.

The research firm explained that 'drivers for the rural independent telcos [to deploy FTTH] include aging copper lines in need of replacement, the opportunity to deliver video given a more robust platform, a pioneering tradition, and in some cases, subsidies such as rural broadband loan programs and universal service funds.'

In addition to the "Tier 3" telephone companies, municipalities (particularly those in rural areas) have deployed FTTH systems, which are "...usually undertaken after private service providers have declined to upgrade their networks or build such systems."³

Similarly, Harvard University's Berkman Center for Internet and Society study, entitled "Next Generation Connectivity" ("*Berkman Report*") noted the importance of strong public commitment for deploying broadband infrastructure, whether in the form of a stimulus or long-term investment.⁴ The largest contribution, however, is likely to come from private sector investment, and finding the right combination of public benefits and mechanisms to leverage private capital is one of the core challenges facing the Commission in creating the National Broadband Plan.

The *Berkman Report* also observed that many of the European broadband plans have adopted a "dual-track" approach to their broadband adoption and deployment policies. In this regard, "[t]hey seek truly universal access to first generation broadband technologies, and independently seek to catalyze high levels of availability and adoption of next generation capacities."⁵ OneChip recommends the National Broadband Plan include catalysts to encourage the deployment of next generation networks, including certification programs and tax incentives for service providers.⁶ In addition to these

³ *CITI Report* at 16 (internal citations omitted).

⁴ The *Berkman Report* calculated the \$7.2 billion investment by the American Recovery and Reinvestment Act to be one of the larger public investments to next generation broadband. *Berkman Report* at Section 6.

⁵ *Berkman Report* at Section 2.1.2.

⁶ See, e.g., Fiber-to-the-Home Council December 14, 2009 *ex parte* at 20-30; and Corning December 18, 2009 *ex parte* at 9-10.

efforts, OneChip encourages the Commission to explore means for supporting government and industry efforts to increase research and development in advanced network technologies.⁷

In accordance with Section 1.1206 of the Commission's Rules, a copy of this is being filed via the Electronic Comment Filing System in the docket for the above-captioned proceedings. Please contact the undersigned at 202-256-8550 or at douglas.cooper@onechipphotonics.com if you have any questions with regard to this matter.

Sincerely,

Doug Cooper
VP Regulatory & Market Development

⁷ See, e.g., Telecommunications Industry Association December 16, 2009 *ex parte* and *Investing in Telecom for Tomorrow's Innovations* whitepaper.