



**Wirespark**  
Connect to Quality

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# **RESPONSE TO POTENTIAL DECLARATION OF CERTAIN WHOLESALE SERVICES**

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**NICTA PUBLIC INQUIRY**



JUNE 11, 2025

WIRESPARK

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## **Executive Summary**

Wirespark, an access seeker and retail Internet Service Provider (ISP) in Papua New Guinea, welcomes this Public Inquiry and the opportunity to provide feedback on the proposed declarations of several wholesale services. Wirespark largely supports NICTA's proposed market definitions and the rationale for declaring these services. Wirespark concurs that these declarations are essential to promoting effective competition and economic efficiency within the ICT industry in PNG, as outlined in the National Information and Communications Technology Act 2009.

Our feedback emphasizes that the identified access provider (DataCo) holds substantial market power in these upstream wholesale markets due to high sunk costs and the non-replicable nature of much of its infrastructure. Regulating these services will lower essential input costs for access seekers like Wirespark, enabling more competitive retail pricing, increasing ICT service adoption, and ultimately stimulating further investment across the industry.

While we generally agree with NICTA's analysis, the historical context of Telikom Limited's P2P & P2MP fiber, Digicel's P2P fiber and PNG Power Limited's P2P fiber market presence requires a more thorough investigation of the supply-side dynamics for the "Wholesale Local Dedicated Capacity Service," as it may offer a greater potential for competition than currently assessed.

## **1. Wholesale International Dedicated Submarine Cable Capacity Service**

### **Question 1 (Market Definition)**

Wirespark agrees with the proposed product market of "international dedicated capacity service via fiber optic submarine cables only". The exclusion of satellite-based international capacity is well-justified due to observed demand shifts to fiber (e.g., post-CS2 launch), significant unit price differences, and superior quality (lower latency) of fiber for modern applications. The lack of rapid supply-side substitution for new fiber infrastructure further supports this. We also agreed with the geographic market being the national territory of PNG, given the increasing interconnection points.

### **Question 2 (Competition Objective - Section 128 (a) and (b))**

Wirespark strongly agrees that this declaration fulfills the competition objective. Lowering the price of this essential input will reduce costs for retail ISPs, leading to lower retail prices for downstream services (mobile bundles, fixed Internet), stimulating usage, and incentivizing further network investment by retail operators. DataCo's facility cannot be feasibly substituted due to high fixed/sunk costs and declining average costs, granting it substantial market power. Without declaration, DataCo could engage in anti-competitive pricing, potentially forcing competitors out of the market.

### **Question 3 (Efficiency Objective - Section 128 (a) and (c))**

Wirespark agrees that this declaration fulfills the efficiency objective. The historical increases in supply (Figure 1) demonstrate technical feasibility and reasonable costs. The declaration will promote DataCo's exploitation of economies of scale (increased utilization lowers unit costs) and scope (spreading common costs across services). This, in turn, will enhance DataCo's efficiency and incentivize further efficient investment, contrary to any concerns about compromising investment incentives.

## **2. International Submarine Cable Facilities Access Service**

### **Question 4 (Market Definition)**

Wirespark agrees with this market definition. This service is not only complementary but essential for accessing international submarine cable transmission capacity. Without it, access seekers cannot use the international capacity. This unique correspondence means there is no feasible demand-side or supply-side substitution. The national territory of PNG is the appropriate geographic market.

### **Question 5 (Competition Objective - Section 128 (a) and (b))**

Wirespark agrees that this declaration fulfills the competition objective. As an essential and complementary service, its declaration will provide the same benefits as the international capacity service declaration, primarily lowering input costs for retail services and promoting competition. Without declaration, DataCo's control over this non-replicable facility could allow it to exclude or delay access, hindering competition in retail markets.

### **Question 6 (Efficiency Objective - Section 128 (a) and (c))**

Wirespark agrees that this declaration fulfills the efficiency objective. The successful collocation of Digitec-Vodafone in 2022 demonstrates technical feasibility and reasonable costs, without compromising DataCo's operations. Promoting fuller utilization of collocation space increases the efficiency of DataCo's investment and incentivizes further efficient investment. Increased access to these facilities also avoids inefficient replication of the underlying infrastructure.

### **3. Wholesale Long-Haul Dedicated Capacity Service**

#### **Question 7 (Market Definition)**

Wirespark agrees with this market definition. The product market correctly includes only fiber-optic cables (overhead, underground, underwater), excluding microwave and satellite links. Microwave links are limited by line-of-sight, signal degradation, and capacity, making them poor substitutes for high-capacity long-haul needs. Satellite backhaul is rejected due to higher prices. The PNG experience with fiber replacing microwave for high bandwidth 4G services supports this distinction. Supply-side substitution is correctly rejected due to the significant capital and time investment required. The national territory of PNG is the appropriate geographic market due to DataCo's expanding backbone network.

#### **Question 8 (Competition Objective - Section 128 (a) and (b))**

Wirespark agrees that this declaration fulfills the competition objective. Lowering the price of this essential backhaul service will reduce costs for retail operators, leading to lower retail prices for voice/SMS and data bundled services and fixed Internet, thus promoting competition. This will also drive increased ICT service usage and stimulate further network investment by access seekers. DataCo's control over a non-replicable fiber facility gives it substantial market power. Without declaration, DataCo could exclude or delay supply, or engage in anti-competitive pricing, potentially forcing retail competitors out of the market.

#### **Question 9 (Efficiency Objective - Section 128 (a) and (c))**

Wirespark agrees that this declaration fulfills the efficiency objective. The increased supply of long-haul dedicated capacity since the prior declaration demonstrates technical feasibility and reasonable costs, given that most costs are fixed with minimal variable costs. The declaration will promote DataCo's exploitation of economies of scale (increased utilization lowers unit costs) and scope (spreading common fixed costs across services). This increased efficiency will positively impact DataCo's incentive for efficient investment in its fiber optic network.

## **4. Wholesale Local Dedicated Capacity Service**

### **Question 10 (Market Definition)**

Wirespark largely agrees with the proposed market definition for Wholesale Local Dedicated Capacity Service. The focus on fiber-based links for "last-mile connectivity" within urban areas is appropriate. The reasons for excluding fixed radio links (often for auto-transport, replaced by fiber in cities, lower capacity) and copper/coaxial cables (no existing wholesale market in PNG, lower capacity, not substitutes for high-capacity fiber) are valid. The geographic market as "urban areas within the national territory of PNG" is also suitable.

However, Wirespark has a critical nuance regarding supply-side substitution that warrants further investigation. The Discussion Paper states: "Our analysis of supply-side substitution leads us to reject any meaningful supply-side effect from other providers as the time and resources necessary to expand a fiber optic network in a metropolitan area are considerable".

This assertion needs to be carefully re-evaluated given Telkom Limited, Digicel and PNG Power Limited's existing fiber infrastructure. Telkom Limited has historically had a P2P fiber and P2MP fiber market presence well before DataCo and Digicel built their current infrastructure. PNG Power Limited has also historically had a P2P fiber infrastructure in the form of OPGW [Optical Ground Wire] running on power pylons and ADSS [All-Dielectric Self-Supporting] running on their power poles for their own internal use. Telkom Limited also provides P2P dark fiber or P2MP FTTx which are "already readily available on their MSAN infrastructure throughout PNG towns and cities." Digicel also now has P2P fiber-optic technology within some metropolitan cities and urban areas.

If Telkom's MSAN [P2MP] & P2P fiber, Digicel's existing & readily available P2P fiber infrastructure and PNG Power Limited's OPGW & ADSS can be leveraged for wholesale provisioning, it would significantly lower the barriers to entry for another provider to offer competing wholesale last-mile services. This capability suggests a more meaningful supply-side substitution effect than currently acknowledged, directly challenging the premise that DataCo is the sole wholesale provider in this market.

Wirespark urges NICTA to thoroughly investigate the extent to which Telkom, Digicel and PNG Power Limited's existing fiber infrastructure is available for wholesale, as it could alter the conclusion that there is no meaningful supply-side substitution in this market. This assessment is vital to accurately reflect the competitive landscape and ensure that regulatory intervention is precisely targeted.

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**Question 11 (Competition Objective - Section 128 (a) and (b))**

Wirespark agrees that this declaration fulfills the competition objective. Lowering the price of this essential "last-mile connectivity" input will directly reduce costs for providers of fixed Internet services, leading to lower retail prices and enhanced competition in that downstream market. It will also drive increased ICT service usage and incentivize network expansion by access seekers. DataCo's control over this non-replicable fiber facility grants it substantial market power. Without declaration, DataCo could exclude or delay access, or implement anti-competitive pricing, potentially forcing competitors out of the market.

**Wirespark adds:** If Telikom, Digicel and PPL are indeed able to offer competing wholesale local dedicated capacity services from their existing fiber infrastructure, this would provide an additional layer of wholesale competition, further reinforcing the pro-competitive effects of the declaration by reducing DataCo's ability to exert market power.

**Question 12 (Efficiency Objective - Section 128 (a) and (c))**

Wirespark agrees that this declaration fulfills the efficiency objective. The significant growth in leased links for this service demonstrates technical feasibility and reasonable costs, particularly given the low incremental cost of adding links to existing fiber infrastructure. The declaration will promote DataCo's exploitation of economies of scale (increased utilization lowers unit costs) and scope (spreading common fixed costs across services). This increased efficiency will positively impact DataCo's incentive for efficient investment in its local fiber networks.

## **5. Wholesale Internet Access Service**

### **Question 13 (Market Definition)**

Wirespark agrees with this market definition. The distinction between fiber-based and satellite-based wholesale Internet access is correct due to the significantly higher price and lower quality (higher latency) of satellite services, especially for high-capacity and real-time applications. The observed market shift in PNG from satellite to fiber after CS2 launch reinforces this. The lack of meaningful supply-side substitution due to the intensive capital and time needed for fiber network deployment is also correct. The national territory of PNG is the appropriate geographic market.

### **Question 14 (Competition Objective - Section 128 (a) and (b))**

Wirespark agrees that this declaration fulfills the competition objective. Lowering the price of wholesale Internet access is critical for reducing costs for retail ISPs, leading to lower retail prices for mobile and fixed Internet services and boosting competition. This will stimulate demand and incentivize retail ISPs to invest more in network expansion.

DataCo's control over this non-replicable fiber facility gives it substantial market power. Without declaration, DataCo could exclude or delay access, or price anti-competitively, harming competitors and potentially making retail services unprofitable. The fact that DataCo and its related company Telikom compete in retail markets further necessitates this declaration to prevent market power abuse.

### **Question 15 (Efficiency Objective - Section 128 (a) and (c))**

Wirespark agrees that this declaration fulfills the efficiency objective. The increased supply of wholesale Internet access demonstrates technical feasibility and reasonable costs, especially given the low incremental cost of connecting new access seekers to existing fiber infrastructure. The declaration will promote DataCo's exploitation of economies of scale (increased utilization lowers unit costs due to fixed costs) and scope (spreading common fixed costs across services). This increased efficiency will positively impact DataCo's incentive for efficient investment in its fiber optic network.



## **6. Conclusion**

Wirespark fully supports the declaration of the proposed wholesale services. These declarations are a critical step towards fostering a more competitive and efficient ICT market in Papua New Guinea, ultimately benefiting consumers and driving economic development. We urge NICTA to proceed with these declarations, while also carefully assessing the potential for immediate supply-side competition in the "Wholesale Local Dedicated Capacity Service" market from existing infrastructure owners like Telkom Limited (given its historical presence) and Digicel.