

**立法會**  
**Legislative Council**

LC Paper No. CB(1)710/19-20(07)

Ref. : CB1/PL/ITB

**Panel on Information Technology and Broadcasting**

**Meeting on 8 June 2020**

**Background brief on the implementation of the Subsidy Scheme to Extend  
Fibre-based Networks to Villages in Remote Areas**

**Purpose**

This paper provides background information on the implementation of the Subsidy Scheme to Extend Fibre-based Networks to Villages in Remote Areas ("the Subsidy Scheme"), and a brief account of the concerns expressed by Members on the subject.

**Background**

2. To meet the demand for high-speed broadband services networks to remote villages in the New Territories and outlying islands, the Chief Executive announced in the 2017 Policy Address that the Subsidy Scheme to extend the fibre-based networks of fixed network operators ("FNOs") to these areas should be launched. In July 2018, the Finance Committee ("FC") of the Legislative Council approved a funding of \$774.4 million for the implementation of the Subsidy Scheme. This Subsidy Scheme is expected to benefit villagers living in remote villages in nine districts.<sup>1</sup> It would also provide the telecommunications infrastructure for the conservation and revitalization of rural and remote areas in future.

---

<sup>1</sup> The Subsidy Scheme originally targeted to benefit about 170 000 villagers living in about 300 villages in nine districts, namely North, Sai Kung, Tai Po, Sha Tin, Yuen Long, Tuen Mun, Tsuen Wan, Kwai Tsing and Islands. The Administration revealed a lowered number of target beneficiaries in January 2019 (See Paragraph 3).

### Scope of coverage

3. The Subsidy Scheme targets some 235 remote villages located far away from the existing fibre-based backbone networks of FNOs where villagers can only choose slow broadband services. The Administration estimated that about 120 000 villagers would benefit, taking into account the latest network coverage information, the comments received during the consultation with the Legislative Council, as well as the views of the relevant District Councils ("DCs"), Rural Committees ("RCs") and the villagers concerned.

### Implementation plan

4. The Subsidy Scheme is implemented through six projects. Through these projects, eligible FNOs are invited to participate, by way of tender, the roll-out of fibre-based networks to the vicinity of the entrances of these 235 villages. The successful bidders of two of these projects are additionally required to roll out submarine fibre-based cables connecting Lamma Island, Cheung Chau and Peng Chau to the existing fibre-based backbone networks.

5. Upon extension of fibre-based networks to the village entrances, FNOs can provide broadband services to villagers by connecting the fibre-based networks to the existing copper-based networks within the villages. Broadband speed can then instantly increase from the current 10 megabits per second ("Mbps") or below to at least 25 Mbps. Stability of service can also improve. If the villagers reach an agreement with an FNO to allow the latter to roll out fibre-based networks within the village, the broadband speed can further increase to a level which is comparable to those in the urban areas (e.g. 500 Mbps or 1 000 Mbps).

6. To introduce competition, successful bidders are required to open up at least half of the capacity of the fibre-based networks and submarine fibre-based cables subsidized under the Subsidy Scheme for use by other FNOs for free. According to the Administration, such a requirement can ensure that other FNOs can follow right after the successful bidders to also provide broadband services to the villages concerned by sharing the use of the subsidized facilities, thereby offering more choices to the villagers. Service charges are thus expected to be able to peg at a competitive level under the market mechanism.

### Progress

7. Through a tender exercise, the Office of the Communications Authority ("OFCA") awarded five of the six projects under the Subsidy Scheme to either HGC Global Communications Limited or Hong Kong Telecommunications

(HKT) Limited in late 2019. After making technical adjustments, OFCA re-invited tenders for the one remaining project in January 2020, and expected to award it to an FNO in mid-2020. These FNOs will commence works within 2020 and the new networks are expected to be built in phases from 2021 onwards.

## **Previous discussion**

8. This subject was discussed at the meetings of the Panel on Information Technology and Broadcasting ("the Panel") and FC on 14 May 2018 and 13 July 2018 respectively. The major views and concerns expressed by Members are summarized in the ensuing paragraphs.

### Scope of coverage

#### *Connection from backbone networks to villages*

9. Members enquired about the basis for selection of the 300 villages to be covered under the Subsidy Scheme, as they noted that some villages which were not selected were more remote than some selected ones. They also asked if the final list of villages to be covered under the Subsidy Scheme would be announced.

10. The Administration explained that OFCA compiled the preliminary list of villages based on the villages specified in the Rural Representative Election Ordinance, the List of Recognized Villages under the New Territories Small House Policy promulgated by the Lands Department, and the coverage information submitted by FNOs. OFCA had consulted the nine relevant DCs and 27 RCs, and would take into account their comments and the latest developments of the villages before finalizing the list of villages to be covered under the Subsidy Scheme, which would be announced once confirmed.

11. Some FC members enquired if the Subsidy Scheme would cover outlying islands. They asked if the islands to be covered would be the most populated ones, and whether the tender would list out the specific islands to be covered. The Administration confirmed that the Subsidy Scheme included the roll-out of three submarine fibre-based cables to Lamma Island, Cheung Chau and Peng Chau. The tender would list all the villages to be included under the Subsidy Scheme, including those on the three islands as well as other smaller islands such as Tap Mun, Kat O and Ap Chau. The Administration added that stable electricity supply was a prerequisite for an island to be considered for inclusion in the Subsidy Scheme, and some small islands would benefit from the

Subsidy Scheme by getting enhanced broadband services through wireless technology.

*Connection within rural villages*

12. Panel members expressed disappointment that the subsidized fibre-based lead-in connections could only reach village entrances and villagers would have to negotiate with service providers for the roll-out of fibre-based networks inside the villages. Members asked if the Administration could take the initiative to facilitate the extension of fibre-based networks to individual households inside the villages, such as by resuming private land within the village for carrying out the network extension works. They also queried if the incumbent FNO owning the copper-based network within a village could refuse sharing its network with other FNOs.

13. The Administration responded that selected FNOs would receive subsidies to roll out fibre-based lead-in connections to the vicinity of the entrances of the villages, which could be connected to the existing copper-based networks inside the villages for the provision of broadband services to villagers concerned. These copper-based networks might be accessed through interconnection requirement.

14. The Administration explained that the Telecommunications Ordinance (Cap. 106) did not empower the Administration to resume land for the purpose of laying telecommunications network. As fibre extension works inside villages involved private property rights, the Administration considered it necessary for FNOs and villagers to come to a commercial agreement. The Administration added that FNOs who received subsidies would be required to open up at least half of the capacity of the subsidized networks for use by other FNOs for free. This requirement was expected to induce competition among FNOs to provide higher speed services to individual households within the villages at a competitive price.

15. Members commented that many FNOs who had rolled out networks to villages had encountered difficulties with the last mile, i.e. coverage of networks within the villages. Complex issues such as land rights, road rights, permits for excavation works etc. had prevented them from extending the networks from the entrances of the villages concerned to the villagers' households.

16. The Administration responded that, as land within the villages was mostly private land, it was not possible for the Government to make it mandatory for FNOs to extend their fibre-based networks into the private village areas. Nevertheless, if FNOs had committed in their tender submissions to

provide high-speed broadband services within the villages, their proposals would receive higher scores in the technical assessment under the Subsidy Scheme. Such tender design would encourage FNOs to reach commercial agreements with the villagers concerned to roll out the fibre-based networks within the villages.

17. Members suggested that in order to enhance network coverage, the Administration should either consider launching a subsidy scheme to address the network coverage problem within the villages, or resolve the fundamental private land rights issue altogether. The Administration responded that if fibre-based networks could reach the vicinity of the village entrances, there would be incentive for operators to cover the last mile by rolling out networks into the villages, and villagers could have more choices of broadband services. The Administration added that the last mile might be easier for some but harder for others, since some villages were densely populated whilst some were confronted with land rights or other problems involving significant investment or economic constraints.

18. Some FC members commented that the Administration should learn from the successful experience of some FNOs which had rolled out their networks within villages to develop feasible measures to achieve its policy objective. The Administration explained that there were many reasons inhibiting the rolling out of fibre-based networks within the villages and was doing all things possible to resolve the problems. While the rolling out of fibre-based networks to a village was mainly a commercial activity of a FNO, the situation would be different with the introduction of the Subsidy Scheme which would provide financial incentives for FNOs and where competition would be encouraged.

#### *Broadband services in urban areas*

19. Some members said that certain households in urban areas experienced similar difficulties of not being able to enjoy high speed broadband services. They queried whether the Administration had a policy of ensuring full coverage of broadband services over the territory.

20. The Administration responded that the penetration rate of Hong Kong's residential broadband services was about 91%. In urban areas, fibre-based networks were generally located at proximity to the buildings. However, in certain old tenement buildings, the residents might not be able to enjoy high-speed fibre-based broadband services because FNOs were not able to obtain permission from the property owners to extend their fibre-based networks within the buildings.

21. The Administration added that the telecommunications market in Hong Kong had been fully liberalized. The provision of service, network coverage and the type of technologies adopted were primarily determined by operators based on commercial principles and it was not appropriate for the Administration to compel FNOs to provide high-speed broadband services.

22. Members further enquired if the Administration had estimated the number of villages and old tenement buildings which were not covered in the Subsidy Scheme but might be so covered in future schemes. The Administration said that it had to first complete the Subsidy Scheme and observe its effectiveness. It was hence not possible to give any undertaking at this stage. The Administration noted that some villages were either sparsely populated or abandoned and the need for their coverage did not arise during the consultation with DCs and RCs.

### Implementation plan

#### *Selection of fixed network operators*

23. Members enquired if the Administration had a list of approved FNOs whom villagers could approach for rolling out the networks, and whether a cap would be set on the number of projects to be awarded to each FNO so as to introduce competition.

24. The Administration affirmed that all FNOs eligible for participation in the tender exercise would need to have the relevant licence, and the FNOs awarded with the tenders would be announced. It added that more details would be available when the Administration devised the tendering procedure. As it was the Administration's aim to encourage more FNOs to participate in the Subsidy Scheme, consideration would be given to setting a cap on the number of projects to be awarded to an FNO.

25. Members asked whether the population covered in the six projects under the Subsidy Scheme would be similar. The Administration advised that in grouping the villages into the six projects, OFCA had taken into account the geographical locations of the villages; varying degree of technical difficulties in implementation of the projects; as well as the need to offer more economic incentives for those projects which involve a higher degree of technical constraints.

26. Members enquired if the Administration would give higher score to tender proposals which would benefit more villagers and commit to offering

higher speed of broadband services.

27. The Administration explained that evaluation of a tender proposal would involve both the technical aspect and the amount of subsidy requested. An FNO who undertook to offer a broadband speed higher than 25 Mbps would get a higher score. The commitment so made by an FNO would be written into the agreement to be signed between the FNO and the Government, and penalties would be imposed if the commitments could not be realized.

28. Panel members asked if a successful bidder under the Subsidy Scheme could impose additional terms for other FNOs when the latter sought access to the fibre-based networks and submarine cables. They also asked how the Administration would safeguard against the successful bidder imposing unreasonable terms to deter other FNOs from gaining access to the networks. The Administration said that sanction clauses might be introduced in the tender documents against any non-compliance of tender requirements. The successful bidder would be required to open up at least half of the capacity of the subsidized networks to other FNOs for free, but it might be allowed to ask the other FNOs gaining such access to share out reasonable maintenance costs.

29. On the requirement for FNOs to open up at least 50% of the network for use by other FNOs, some FC members enquired about the responsibility for future maintenance of the subsidized facilities, and whether the Administration would introduce other measures if the broadband service costs remained high in remote villages after the implementation of the Subsidy Scheme. The Administration explained that the Scheme only subsidized the capital cost incurred by FNOs. Maintenance of the network would be the responsibility of the FNOs concerned, although they could recover from other FNOs sharing the subsidized facilities reasonable maintenance expenses. The Administration said it had to strike a balance between promoting competition and participation by more FNOs on the one hand, and providing sufficient incentives for FNOs to bid for the tender on the other. As such, it was considered appropriate to set the opening up percentage at 50%.

#### *Other concerns*

30. A FC member sought clarification on whether the speed of 25 Mbps would be shared by an entire village or would be available to each individual subscriber. The Administration confirmed that the two end locations of the lead-in connection for each village, namely, the network interconnection point and the network termination point would be specified in the tender. While affirming that consultation would be made with DCs, RCs and other relevant persons in determining the two end locations of the lead-in connection, the

Administration stressed that it would also be necessary to take into account the technical aspects such as the current termination points of the existing networks.

31. Panel members commented that the timetable of extending the subsidized lead-in connections to the remote villages in phases from 2021 onwards was too slow. They asked if the Administration could undertake the roll-out works itself. The Administration explained that it did not have the requisite knowledge or expertise to roll out telecommunications networks. It therefore proposed to select operators through a tendering process and provide the selected FNOs with subsidy to complete the works.

32. Some FC member suggested that the Administration should coordinate efforts among various parties, such as the Commerce and Economic Development Bureau examining in conjunction with the Innovation and Technology Bureau the network coverage situation in old tenement buildings, villages and old districts; and the Home Affairs Department ("HAD") and the Lands Department working jointly with RCs, village representatives, etc. in resolving the complex issues of land rights, road rights and excavation works.

33. The Administration agreed that there was a need for more coordination in the provision of network services in remote areas. It had undertaken consultation with various parties concerned, and was hopeful of assistance being rendered jointly by local residents, RCs, village representatives, etc. As regards the focal point of contact within the Government setup, the Administration advised that villagers could make initial contact with village representatives who in turn could approach HAD. After FNOs had been selected and announced, the relevant FNOs would have to liaise with local residents on issues such as road works. If further assistance was required, HAD and other government departments as well as village representatives and DC members would all have a role to play.

34. A FC member enquired whether 5G technology could replace the fibre-based fixed network. The Administration advised that the two technologies complemented each other. An FNO could choose to use either fibre-based fixed network or wireless technology (such as 5G) for the last mile connection to reach the service speed committed in the tender proposal, and the Government would not impose restrictions on the use of technology.

#### Special Finance Committee meeting

35. At the special FC meeting to examine the Estimates of Expenditure 2020-2021 held on 7 April 2020, members raised queries on the Subsidy Scheme's staffing and expenditure status, implementation progress and timetable,



as well as the list of villages and number of villagers benefitting from it. Members also asked the implications of re-inviting tenders for the sixth project, and the reasons for not using the approved commitment for the Subsidy Scheme earlier.

Question raised at Council meeting

36. Hon CHAN Hak-kan raised a question related to the implementation details of the Subsidy Scheme at the Council meeting on 30 January 2019. Details of the question and the Administration's reply are given in the hyperlinks in the **Appendix**.

**Latest position**

37. The Administration will brief the Panel on 8 June 2020 on the progress of the implementation of the Subsidy Scheme.

**Relevant papers**

38. A list of the relevant papers is set out in the **Appendix**.

## List of relevant papers

Issued by	Meeting date	Paper
Panel on Information Technology and Broadcasting	14 May 2018	<p>Administration's paper on subsidy scheme to extend fibre-based networks to villages in remote areas (<a href="#">LC Paper No. CB(4)1036/17-18(07)</a>)</p> <p>Power-point presentation materials (Chinese version only) (<a href="#">LC Paper No. CB(4)1037/17-18(01)</a>)</p> <p>Minutes of meeting (<a href="#">LC Paper No. CB(4)1594/17-18</a>)</p>
Finance Committee	13 July 2018	<p>HEAD 55 – GOVERNMENT SECRETARIAT: COMMERCE AND ECONOMIC DEVELOPMENT BUREAU (COMMUNICATIONS AND CREATIVE INDUSTRIES BRANCH) Subhead 700 "General non-recurrent" New item "Subsidy Scheme to Extend Fibre-based Networks to Villages in Remote Areas" (<a href="#">FCR(2018-19)40</a>)</p> <p>Minutes of meeting (<a href="#">LC Paper No. FC94/18-19</a>)</p>
Council	30 January 2019	<p>Question No. 19 raised by Hon CHAN Hak-kan <a href="#">Subsidy scheme to extend fibre-based networks to villages in remote areas</a></p>
Special Finance Committee	7 April 2020	<p><a href="#">Administration's replies to Member's initial written questions</a> (Reply Serial Nos. CEDB(CCI)021, CEDB(CCI)031, CEDB(CCI)034, CEDB(CCI)036, CEDB(CCI)042, CEDB(CCI)049)</p>