

# Fact Sheet: Agreement with Northpower Limited

## Whangarei UFB Coverage Area

From Kamo in the north to Otaika in the south, Maunu in the west and Onerahi in the east:



## UFB Marketplace (Sources: Statistics New Zealand, sub national population estimates 2010, Crown Fibre Holdings, Ministry of Education)

A population of nearly 52,000, including more than 2,000 business premises, and over 300 medical and other healthcare services, with over 20 schools.

### Indicative Build Timeframe

The project will commence in December 2010 and be completed in 2014. There are 5 major phases proposed starting with the CBD, then Tikipunga, followed by the Southern and Maunu areas, on to Kamo and ending with Riverside & Onerahi areas.

### Products and Pricing

Ultra-Fast Broadband (UFB) products are based on a “building block” approach. The Local Fibre Company (LFC) will sell ultra-fast broadband components such as downstream bandwidth, upstream bandwidth and Committed Information Rate (CIR) to the requirements of Retail Service Providers (RSPs). CIR is a guaranteed minimum rate of data transfer for priority traffic.

UFB pricing is at the **wholesale** level, and end-users should bear in mind that prices of retail UFB-based services will reflect non-LFC costs, such as national backhaul, international bandwidth, provisioning, billing and so forth. Crown Fibre Holdings, Northpower and Ultra Fast Fibre intend to publish final UFB wholesale prices prior to initial sales of retail UFB services. **The prices shown below are indicative of expected products and prices and are initial prices only.** Prices are per month excluding GST.

Several “template” products are described below. Note there is **no** additional one off charge for consumer connections:

Product	Upstream and Downstream Speeds	Committed Information Rate	How UFB Products Can Be Used	Indicative Pricing
<i>Entry level Consumer</i>	30 Megabits per second (Mbps) Downstream / 10Mbps Upstream	Minimum 2.5Mbps Symmetric, then purchase in 2.5Mbps increments (Downstream or Upstream or both)	Upload a 30MB folder of photos in 24 seconds	\$40 or less
<i>Household 100Mbps</i>	100Mbps Downstream / 50Mbps Upstream	As above	Download a High Definition movie in <8.5 minutes	\$60 or less
<i>Premium Business</i>	1Gbps Symmetric	Purchase Symmetric CIR in increments of 10Mbps	Send a radiology image ( say 1GB) in 8 seconds	\$600 or less

Across a wide range of markets, the LFC's products will compare favourably to services currently available over copper.

### **Consumer entry level product**

The LFC will offer an entry level product for \$40 or less per month. This product will download at 30 Megabits per second (Mbps) and upload at 10 Mbps. This is lower than the current price of 'Naked DSL', a wholesale copper product which supports ADSL2+ broadband services without a phone line, known in the industry as EUBA 40.

'Naked DSL' services have a maximum download speed of 24Mbps and 1Mbps upload. Speeds over DSL vary depending on network usage and location and rarely reach maximum speeds. 'Naked DSL' has a guaranteed download speed, known as a Committed Information Rate (CIR) of 45 Kilobits per second. The Ultra fast fibre entry level product has a CIR of 2.5Mbps - this offers approximately 50 times greater dedicated bandwidth than 'Naked DSL'.

The LFC will also offer a 'triple play' entry product with a higher downstream CIR of 10Mbps designed to carry high definition pay TV as well as voice and broadband which will initially be priced at \$45 or less .

### **Consumer 100 Mbps household product**

The LFC will also offer a UFB product for the home priced at \$60 or less, providing 100Mbps download speed and 50Mbps upload. Like the entry level product this will have a CIR of 2.5Mbps.

### **Business products**

The LFC will offer a suite of competitively priced business products, including dark fibre and premium Layer 2 services like 100Mbps and 1 Gigabit per second symmetrical services. For example, a 1 Gigabit symmetrical service will be priced at or less than \$600. This is about half the minimum wholesale price, where this service is currently available. The LFC will also offer 'dark fibre' services where the customer is provided with access to the raw fibre infrastructure.

### **Schools**

UFB products for schools are expected to be provided in a similar manner to business products. However, prices will be lower than for businesses because of the Government's recent decision to cover 100% of the cost of the fibre "drop" from a school's boundary to its server room.

## **Potential Economic Impacts of UFB**

- The Ultra Fast Broadband initiative has great potential to drive economic growth and development in Whangarei.
- This kind of value adding technology has been identified in the Northland Economic Development strategy as a significant contributor to the growth strategy for the region.
- Fibre to the premise enabling good connectivity increases the potential for local business to compete in a wider range of markets and to increase productivity and profitability.

## **Technology**

Both GPON and Point-to-Point technology are being used for UFB.

GPON means Gigabit Passive Optical Network (ITU-T G.984 standard) comprising an optical signal capable of delivering ~2.5Gbps downstream and ~1.2Gbps upstream over a single fibre that is then capable of being split into separate signals to deliver service to multiple customers. For UFB, GPON is split 1:24 enabling up to 24 customers to receive 100Mbps downstream and 50Mbps upstream.

Point-to-point fibre optic connections provide a dedicated signal to a single premise and will be used for premium business and some priority users. This is capable of supporting speeds of up to 10 Gbps and is a high end connection.

## About Northpower Limited

Northpower is a New Zealand-owned company with a reputation for excellence in multi-utility design, construction and maintenance services. The company has a significant electrical contracting business and delivers fibre reticulation services as well as owning a FTTP network in the Whangarei region. The group has nearly 1000 staff, a turnover of just over \$200 million and a total asset value in excess of \$300 million. Its move into fibre infrastructure is a natural progression which reinforces the strong connection Northpower has with a variety of customer and local community groups.

## Deed of Undertaking

The **Deed of Undertaking** with the newly formed LFC, Whangarei Local Fibre Company Limited is an agreement between the LFC and the Crown, in which the LFC provides binding “open access” undertakings regarding the application of non-discrimination and equivalence rules in the provision of wholesale telecommunications services offered over infrastructure funded by Crown co-investment. This is enforced by the Commerce Commission.

## How Will the LFC Provide Services?

Northpower and CFH are partners in the LFC. The LFC will contract with Northpower to build the network, and in turn Northpower may contract with other suppliers and contractors to assist. CFH funds the cost of fibre “passing”, (the connection that runs down the street) as it is completed and signed off to specifications, and then it becomes operational. The partner, Northpower funds each “drop”, the connection from the premise to the fibre in the street, as it hooks customers up.

The LFC may then contract with RSPs such as Vodafone, TelstraClear, XfNet, Uber Group and so on in the provision of wholesale services. The LFC will operate only at the wholesale level - it doesn't sell services directly to end users. In turn, RSPs use the LFCs' wholesale products to create retail UFB-based services which are sold to residents, businesses, schools and health premises.