# Regarding the Review of Interconnection Charges for Optical Subscriber Lines

- O Lower prices every year using the future cost method for a three-year period, factoring in constant efforts to decrease costs and develop new sources of demand.
- O By setting our interconnection charges for each fiscal year, improve other interconnection service providers' ability to forecast their business operations.
- O Revise the difference between the forecast and actual results every fiscal year in order to incentivize both the recovery of appropriate investments and the development of new sources of demand.
- O Through these efforts, provide fiber-optic services at low fees on par with ADSL.

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Basic Policy for the Calculation of Interconnection Charges for Optical Subscriber Lines

#### 1. Fundamental Approach for the Calculation of Interconnection Charges for Optical Subscriber Lines

 Interconnection charges are levied on customers to recover actual costs relating to facilities, and our fundamental approach is to calculate the charges on an actual cost method. However, for the current review, NTT West adopted the future cost method to calculate and set interconnection charges based on the premises below:

① By providing a forecast for lower interconnection charges, NTT West will create a market environment into which interconnection service providers can easily enter, and will use a three-year calculation period, the same duration as for the current interconnection charges, from FY2011 to FY2013.

② By reflecting the increase in demand and cost reduction year to year, NTT West will set interconnection charges that decrease in phases every fiscal year.

• Further, under the current interconnection charge authorization, NTT West is permitted to add the price gap between forecasted and actual demand (the difference between actual revenues and forecasted costs from FY2008 to FY2010 (76.4 billion yen)) to the interconnection charge costs for FY2011 and beyond. However, because this method would recover an amount that exceeds the original costs to be recovered, NTT West set its interconnection charges by adding the difference between the actual revenues and actual costs (42.2 billion yen) to the cost of interconnection charges for FY2011 and FY2012<sup>(\*1)</sup>.

This method will be applied to the differences between actual revenues and actual costs that arise beyond FY2011 as well.

- We have aggressively forecasted the demand number necessary for the interconnection calculation, even though there is a decreasing trend in the year to year net increase in FLET'S Hikari subscriptions. The calculation also takes into account greater efficiency with respect to investments and expenses.
- As a result of the calculation based on the above, the applicable fees beyond FY2011 will be as follows:

① Optical subscriber line:

FY2011: 4,784 yen/month; FY2012: 4,578 yen/month; and FY2013: 3,426 yen/month

(2) Optical main subscriber line under the shared access system (\*2) :

FY2011: 4,298 yen/month; FY2012: 3,995 yen/month; and FY2013: 3,010 yen/month

Compared with current fees of 4,932 yen/month for optical subscriber lines and 4,368 yen/month for optical main subscriber lines under the shared access system, the applicable fees for FY2013<sup>(\*3)</sup> will be approximately 30% less, respectively: an approximate 1,500 yen/month decrease for optical subscriber lines and an approximate 1,400 yen/month decrease for optical main subscriber lines under the shared access system. We believe that these lowered fees will further contribute to the expansion of fiber-optic services.

#### Notes:

- (\*1) The price gap for FY2010 takes into account forecasted revenues for the remainder of the fiscal year.
- (\*2) Includes the outside optical splitter charge applicable in FY2011, which is reviewed under the actual cost method every fiscal year.
- (\*3) The difference between actual revenues and actual costs that newly arise and are added during the calculation period is not included.

## 2. Main Assumptions in the Calculation of Interconnection Charges

### (1) Demand

• While there is a decreasing trend in the net increase in FLET'S Hikari subscriptions, NTT West is counting on new and upcoming services, including, among other things, an extensive line-up of applications for the public to increase demand. As such, with regard to FLET'S Hikari, a net increase of 850 thousand subscriptions is projected in each fiscal year from FY2011 to FY2013, the same forecast as in the business plan for the current fiscal year. The necessary number of core cables is determined based on this projection and on estimates made for individual buildings and optical distribution areas<sup>(\*1)</sup>.

• It is difficult for NTT West to predict the number of dark fiber core cables as it is dependent on the future business strategies of interconnection service providers. However, for the current calculation of interconnection charges, the average annual net increase is forecasted to be the same as that for FY2007 to FY2009 for the single star system. For the shared access system, it is expected that the proportion of dark fiber cables to FLET'S Hikari Family Type core cables (0.4%) as of March 31, 2010 will remain the same.

· We have aggressively forecasted demand, including the demand of other service providers.

Note: (\*1) An area that can be covered by a single outside optical splitter.

## (2) Investment

•NTT West plans to expand the optical fiber service area from approximately 1,120 buildings as of March 31, 2010 to approximately 1,450 buildings at the end of FY2013 (excluding buildings provided under the IRU (Indefeasible Right of User) scheme). Investment to the extent necessary, for the deployment of the minimum amount of cables for the number of core cables required in such areas is also anticipated.

## (3) Expenses

• Depreciation costs are calculated based on the investment amounts above. The annual efficiency improvement rate based on the results of the fiscal year ended March 31, 2010 (- 3%) has been factored into the facility maintenance costs.

## 3. Adjustment System for Future Cost Method (tentative)

• The future cost method is a calculation method based on certain forecasts, and actual costs and demands will be impacted by factors such as future developments in services and technology, economic conditions and consumer trends, as well as the business strategies of interconnection service providers. As such, it is expected that inherent deviations from the forecasts will arise.

Therefore, when employing the future costs method, it is essential to make adjustments for situations where cost recovery may become excessive or insufficient due to the foregoing. In this interconnection charges review, adjustments are made for each fiscal year by adding or subtracting the difference between the actual revenues and actual costs to or from the interconnection charge costs for the second succeeding fiscal year (e.g., the difference between the forecasted price gap and the actual price gap for fiscal year ending March 31, 2011 will be adjusted in the interconnection charges for the fiscal year ending March 31, 2013, and the difference between the actual revenues and actual costs for the fiscal year ending March 31, 2012 will be adjusted in the interconnection charges for the fiscal year ending March 31, 2014, and so on).

• As this system is one whereby interconnection charges decrease as NTT West and other service providers further increase demand, we believe that there is an incentive for fiber-optic service providers to increase demand.

#### 4. Others

(1) If two to three users subscribe in a single optical distribution area<sup>(\*1)</sup> using the shared access system, the fees of which were reduced for this review, there will be a cost reduction of roughly 500 yen to 700 yen per month per user for the access cost alone. Thus, if lower network costs and other reductions are taken into account, we will have realized an environment that provides user fees that are on par with ADSL<sup>(\*2)</sup>. If further users can be acquired in a single optical distribution area, costs can be further reduced.

Notes:

- (\*1) Covers approximately 40 households.
- (\*2) At present, since approximately 90% of ADSL users also subscribe to a telephone service, when considered together with the telephone charges, the difference the base charges for FLET'S Hikari High-speed Type + Hikari Denwa and the base charges for FLET'S ADSL + telephone subscriber line is only about 1,000 yen.
- (2) The interconnection charges applicable for shared access system are not set per optical branch subscriber line because, among other things, there are many problems associated with the provision of services when sharing an optical subscriber unit (OSU).

#### Reference material 2

# Review of Optical Subscriber Line Interconnection Charges

(FY2008 - FY2013)

(yen per month per single-core cable)



# Changes in Actual Cost Per Single-core Cable of Optical Subscriber Lines (FY2001 – FY2009)



(yen per month per single-core cable)

Reference material 3

# **Optical Subscriber Line and Shared Access System**



Note: Monthly fees are applicable rates for FY2013 (For optical branch subscriber lines, monthly interconnection charges for FY2011 apply, and separate installation fees are required. The optical main subscriber line fees include the outside optical splitter charge applicable in FY2011 (42 yen/month), which is reviewed under the actual cost method every fiscal year.)

Reference material 5

# Review of Optical Main Subscriber Line Interconnection Charges (FY2008 ~ FY2013)

(yen per month per single-core cable)



#### Reference material 6

# **Review of Price Gap Calculation Method (1 of 3)**

Under the current interconnection charge authorization, we are permitted to add the price gap based on the difference between forecasted and actual demand (the difference between actual revenues and forecasted costs (76.4 billion yen)) to the current interconnection charge costs. However, in order to adequately recover costs, the interconnection charges for future years will be determined by adding the difference between the actual revenues and actual costs (42.2 billion yen) to the current interconnection charge costs.



Note: Costs and revenues show the total amount for the three years from FY2008 through FY2010. The number of core cables is the average monthly number of core cables for the three years.

\* The unit price per single-core cable is an illustrative example using the single star system, and the unit price per core cable using the shared access system (forecasted unit price: 4,299 yen; actual unit price: 4,967 yen) is added for the calculation of the actual price gap.

# **Review of Price Gap Calculation Method (2 of 3)**

Under the previous review, interconnection charges were lowered because demands to other providers were expected to increase. However, there was no growth in demand, which generated a price gap.

⇒ Under the current review, the price gap amount is revised to the unrealized amount (actual revenues – actual costs)



# **Review of Price Gap Calculation Method (3 of 3)**

A system whereby the difference between the actual revenues and actual costs are added on to the interconnection charge costs for the second succeeding fiscal year\*

\* Such system has been adopted in the actual cost method, but not in the future cost method.

If NTT West and other providers further increase demand, interconnection charges will decrease

 $\Rightarrow$  A system that adds incentive to increase demand





Separate subscription to an Internet services provider and payment of monthly usage fees is required for use of the Internet.

In addition to the above fees, there is a universal service charge of 7.35 yen/month (incl. tax) per one telephone number. (Applies from February 2011)

\*1) Subscription to FLET'S Hikari is required for use of Hikari Denwa.

\*2) Calls to telephone subscriber lines, INS-NET and Hikari Denwa throughout Japan is uniformly 8.4 yen/3 minutes. Rates for calls to mobile phones will differ.

\*3) In cases of intra-city calls, and intra-prefectural and inter-city calls.

\*4) Single-unit dwelling: FLET'S Hikari Next Family High-speed Type 4,515 yen + ONU 945 yen + indoor cabling 210 yen + Hikari Denwa 525 yen (Total: 6,195 yen)

\*5) FLET'S ADSL: MORE SPECIAL 3,129 yen + MYLINE PLUS set discount -312.9 yen (10% discount) + modem rental charge 514.5 yen + telephone subscriber line (residential use • class 3 service area) 1,785 yen (Total: 5,115.6 yen)

\*6) Multi-unit dwellings Plan 1: FLET'S Hikari Next Mansion High-speed Type (optical wiring system Plan 1 (8 or more users)) 3,255 yen + ONU 945 yen + Hikari Denwa 525 yen (Total: 4,725 yen)

\*7) Multi-unit dwellings Plan 2: FLET'S Hikari Next Mansion High-speed Type (optical wiring system Plan 2 (16 or more users)) 2,730 yen + ONU 945 yen + Hikari Denwa 525 yen (Total: 4,200 yen)