Macquarie Capital

UTOPIA: Milestone One Working Assumptions

Division	Macquarie Capital
Subject	Milestone One: Working Assumptions

MACQUARIE

The Pre-Development Agreement ("PDA") contemplates a list of key assumptions ("Working Assumptions") that underlie Macquarie's Milestone One Proposal.

At last week's Mayors' Meeting, we discussed providing the Working Assumptions in checklist form for each City to review. Macquarie proposes that each City mark each assumption noted on the following pages as per below:

- Accept the assumption (Yes)
- Reject the assumption (No)
- Further work or analysis is required (?)

Macquarie will consolidate the Cities' responses to identify areas of broad consensus and agree certain assumptions that will form the basis of a term sheet to progress into Milestone Two.

In the event that the Cities, or a subset of the Cities, reject an assumption, the following may occur:

- The assumption is amended through changes to the transaction, which may also have an effect (positive or negative) on the Utility Fee;
  - Some change can be made prior to the finalization of Milestone One
  - Other changes may require further work during Milestone Two
- Certain assumption are fundamental to the model and rejection may require the Cities to terminate the PDA and consider alternative options

In the event that the Cities, or a subset of the Cities, require further work or analysis for an assumption, the following may occur:

- Some additional clarification may be able to be completed prior to finalization of Milestone One
- Other further analysis may require further work during Milestone Two

Macquarie is eager to maintain the open dialogue with the Mayors and the Cities and would appreciate responses to the attached checklist at the Cities' earliest convenience.

Cities' Objectives			Y / N
Ubiquity	▪	It is important to build a last mile connection to all residences and businesses in the Cities	
Open Access	▪	The Cities want to promote competition through an open access network	
Wholesaler	▪	The Cities do not want the Wholesaler to provide services directly to users and compete with ISPs	
Operating Deficit	▪	The Cities want the network operating deficit to be funded during the construction period to preclude further assessments from UTOPIA	
Debt Service	▪	The Cities want an ongoing revenue stream from the expanded network that can be used to defray debt service obligations, among other uses	
Alignment of Interests	▪	Cities, Wholesaler and PPP will share in the network revenues derived from premium service users to align the interests of all parties on the network	
Parity	▪	Macquarie and First Solutions have assumed that all 11 Cities participate in the transaction. The parity issue and potential costs to a City that does not proceed or attempts to separate from the network is a matter for the Cities and the Agencies	

Network Options		Y / N
Network Completion	▪ The Cities will benefit from completing the network ▪ The Cities should complete the network rather than shut it down or sell it	
Public Delivery	▪ The Cities are not willing to pledge further tax revenues to secure further bond issues to complete the network ▪ Funding constraints reduce the Cities' ability to continue to operate and further develop the network	
Network Sale	▪ An outright sale of the network is not a preferred option because: o A sale process has significant execution risk o A sale process may not result in a transaction which defeases debt obligations o The network will likely no longer be truly open access following a sale o It is unlikely that selling the network will result in all addresses receiving connectivity o Acquisition by anything other than a well-capitalized, recognizable player is unlikely to materially expand network's reach	
PPP Model	▪ Transferring the risk of construction of the network under a fixed price, date certain basis is important to the Cities ▪ Transferring the risk of financing, operating, maintaining and refreshing the network under a fixed price certain basis is important to the Cities ▪ Cities retain ownership of the network under the PPP model, which: o Allows the Cities to ensure performance standards, and o Provides an attractive and valuable asset for the Cities upon hand back at the end of the Term	

Business Model		Y / N/
PPP	▪ PPP will build the network on a fixed-price, date-certain basis with a preliminary schedule of approximately 30 months ▪ PPP will operate, maintain and refresh the project network and the existing networks on a fixed-price basis for 30 years ▪ Concession Agreement will require the PPP to provide a 1Gbps connection over the concession period ▪ PPP will negotiate standard service level agreements with the ISPs	
Wholesaler	▪ Wholesaler will manage relationships with the ISPs ▪ Wholesaler will charge ISPs transport fees related to the provision of premium services. These fees will be split between the Cities, PPP and Wholesaler at levels yet to be negotiated ▪ Wholesaler will supplement the marketing activities of the ISPs through broad-based marketing of the network and awareness campaigns to educate the Cities on the benefits of a gigabit connection, including rebranding the network at financial close ▪ Wholesaler will also perform a business development role to attract new revenue streams onto the network, including backhaul capacity for wireless carriers. ▪ Wholesaler will compete in the market for these ancillary revenues	
ISPs	▪ ISPs will provide the Basic Service to all users that pay the Utility Fee as a condition of operating on the network ▪ ISPs will have the opportunity to market premium products to all users, which will be subscription services at up to 1Gbps ▪ ISPs will service end users directly with little involvement from the PPP or the Wholesaler ▪ ISPs will be responsible for completing connections inside the premises	
Agencies	▪ Agencies will continue to manage existing debt obligations and will act as the regulator of network performance under the Concession Agreement and ISP performance under the Service Level Agreements ▪ Agencies will share with the Wholesaler and PPP the cost of installing and refreshing network hardware that increases connectivity beyond 1Gbps proportionate to the sharing of premium service revenues	
Operational Control	▪ The PPP will assume operational control of the network from the Agencies at financial close	
Demarcation Point	▪ Network portal will be installed on the outside of standalone addresses (e.g. single family homes) and in telecommunications closet of MDUs and multi-tenant commercial buildings	

	▪ It is important for the demarcation point to be outside the building for the PPP to guarantee delivery of the network on a specified date	
Installations	▪ The PPP will establish a framework for a standard installation, for which the users will not pay any installation fees ▪ ISPs will be able to charge for non-standard installations, for example, wiring multiple bedrooms ▪ PPP will provide ISPs with $50 for every internal connection completed. The $50 will become payable once the PPP has provisioned a circuit for that user ▪ After the network portal is attached to the address, the user will have up to six months to select an ISP to complete the internal connection	
Basic Service	▪ The proposed Basic Service of 3Mbps upload and 3Mbps download with a 20GB monthly data cap is competitive with entry level products offered by market incumbents ▪ Pricing and/or service offerings from the incumbent operators are likely to become more attractive as a result of the proposed transaction ▪ The Basic Service strikes an appropriate balance between providing value for the Utility Fee and incentivizing users to upgrade to premium services	

Network Users		**Y / N**
UTOPIA Users	▪ Approximately 8,000 of the 11,000 active connections are assumed to be UTOPIA users ▪ UTOPIA users did not pay connection fees and will immediately be shifted on to the utility fee model ▪ Residential users will no longer pay the incremental $12 transport fee that ISPs currently pass through	
UIA and SAA Users	▪ Approximately 3,000 of the 11,000 active connections are assumed to be UIA and SAA users ▪ UIA and SAA users that have paid or are paying connection fees will not pay the utility fee ▪ Macquarie’s preference is for all users to be treated equally under the utility fee model and we are developing a mechanism that would allow these users to be brought into this model and compensated for the connection fees paid	

Transaction Structure		Y / N
Transaction Structure	▪ Utility fee based public private partnership with 30 year concession term ▪ The Cities have legal authority to enter into the Concession Agreement and enact the Utility Fee	
Concession Agreement	▪ Concessionaire will sign the Concession Agreement with a new interlocal agency to be formed and capitalized by the Cities under a new interlocal cooperative agreement	
PPP & Wholesaler	▪ PPP and Wholesaler will be separate legal entities to differentiate risks of network performance from network marketing o Lenders' limited appetite for demand and market risk is the factor driving separation of the PPP and the Wholesaler ▪ PPP and Wholesaler will both be formed and capitalized by Macquarie and First Solutions o The PPP will be special purpose vehicle owner ~90% by Macquarie or a Macquarie managed fund and ~10% by First Solutions	
IRUs to Access Networks	▪ The Concessionaire will sign indefeasible rights of use with the existing UTOPIA, UIA, UTOPIA Stimulus and Brigham SAA networks to permit operation of the network as a single entity ▪ Macquarie has assumed no incremental IRU payments will be made to the Agencies by the Concessionaire under these agreements	
UIA IRU	▪ All remaining indefeasible rights of use payments that UIA owes to UTOPIA will be passed through to the Cities	
Payment Mechanism	▪ The Cities will collect the utility fees and remit these fees to the new interlocal agency as an availability payment that will be passed through to the Concessionaire	
Enforcement Rights	▪ Concessionaire will have certain protections in place to reduce the risk of a shortfall in utility fee collection. The rights being considered are: o Rate covenants o First claim on all network revenues (for example transport fees paid to the Wholesaler) o Build in an assumed non-collection margin into the utility fee (for example Actual UF = 102% * Required UF)	

Network Construction		Y / N
Addresses & Drops	▪ There are approximately 156,500 current premises in the Cities and a further 6,200 expected to be built during the construction period o New connections will be built to approximately 146,000 premises o There are approximately 5,000 disconnected premises. Macquarie has assumed access portals at 20% of these addresses will require replacement	
Topology	▪ The network will continue to be active ethernet. (*Analysis indicated no cost advantage from switching to a DWM-PON topology*)	
Capital Cost	▪ Black & Veatch and Corning, two of the leading telecommunications contractors in the United States, have submitted soft pricing estimates and the best value contractor will be selected by Macquarie to Design-Build the network on a fixed privce, lump sum date certain basis. (*Note: Disclosure of these estimates would be prejudicial to the selection process and reduce Macquarie's capacity to minimize the utility fee and provide value for money to the Cities*) ▪ Soft pricing scope assumes 4.7 million feet of fiber needs to be built with a 65% / 35% split between underground and aerial construction	
Footprint Model	▪ The network will continue to be built in footprints ▪ Black & Veatch and Corning have not completed detailed network designs and as such have not provided suggestions as to which footprints in which Cities will be completed when ▪ Macquarie understands there are up to 50,000 addresses that could be connected soon after financial close is achieved	
Permitting & Poles	▪ Cities will help coordinate and expedite the permitting process to facilitate the 30 month construction schedule ▪ All pole attachment agreements are assumed to be available and valid for the term of the concession	

Financial Assumptions		Y / N
Utility Fee	▪ Preliminary Utility Fee range of $18-20 per month, ▪ Utility Fee is escalated annually at CPI (assumed at 2.5%) o MDUs will receive 50% discount o Businesses will be charged a 100% premium; (*Note: scaling the fee to business size or other measure may be desirable*) o Inflation base year is 2014 ▪ Utility fee is calculated to cover the costs to design, build, provide initial refresh, finance, operate, maintain and refresh the network only. For indication these elements contribute approximately the following to the Utility Fee: o New Build Design & Construction ~$11.00 o Initial Refresh to bring assets to standard ~$1.50 o $50 installation rebate ~$0.30 o 6 month lag in UF ~$0.30 o O&M deficit during construction ~$0.20 o 30 years O&M ~$5.40 o 30 years Refresh ~$1.70 (*buildup of the Utility Fee shown on p9*) ▪ Macquarie's preliminary analysis indicates removing escalation from the Utility Fee will add at least $5 to the monthly utility fee	
Upgrade Revenue Sharing	▪ Tiered upgrade revenue sharing structure that will be designed to align interests of the parties and incentivise the Wholesaler to maximize take rates o Up to a base take rate, the Wholesaler and PPP receive a nominal share o Above the base take rate, the Wholesaler and PPP receive a greater share o The Cities are to propose a set of sharing parameters to Macquarie. Macquarie will help facilitate this negotiation with analysis and modelling as desired	
Debt Financing	▪ Macquarie will determine the debt structure in consultation with the Agencies and coordinate a competitive financing process evaluating bank, bond and alternative solutions to minimize the overall cost of capital	

	▪ Debt may be a long term US bond issue (taxable or tax exempt) or shorter term bank debt. (*Preliminary feedback from lenders indicates the PPP will achieve typical financing terms*) ▪ Capital structure assumed to be 80% debt and 20% equity ▪ Debt raised by the Concessionaire will be non-recourse and repaid from the availability payment and other network cashflows (if necessary) only
Existing Bonds	▪ Refinance or repayment of existing bonds has not been factored into the preliminary utility fee due to high costs of breaking these debt arrangements o Incorporating these bonds is expected to add $10-15 to the preliminary utility fee range