

**Hurricane Sandy's Impact:**   
**VZ Network Restoration on Fire Island**  
**Lesson Learned: Little Island - Potentially**  
**Big Valuation & Forecasting Implications**

***“Applying Forecasts & Cost Studies in Times of Big Change”***  
***Jim Dombrowski, ASA, CAE, IAO, Verizon Property Tax***  
***for 2014 TFI Annual Conference, Austin, Texas, 1/29/14***



***VZ-NY Landline Metrics Mirror LEC Industry:***   
***The backstory preceding a natural disaster!***

- ***VZ & all LECs face A/L loss, competition, & technological change.***
- ***VZ & all LECs have not offset network losses with FiOS/FTTx gains.***
- ***LEC legacy networks; face diminishing value & costly maintenance.***
- ***Operating largely redundant parallel networks adversely affects financial performance & viability of the entire landline network.***
- ***Copper network maintenance expenses far exceed all alternatives.***
- ***VZ NY & other LECs are transitioning their networks***
  - ***Reduce costs, shut down and, where possible, divest of legacy networks.***
  - ***VZ & other LECs goal; integrate FiOS/FTTx, wireless, & other profitable assets.***
  - ***Verizon FiOS/FTTP costs decrease, but face stiff competitive challenges.***
- ***2002 to 2012, VZ-NY lost 7.2M A/L (-60%), NYC lost 3.6M A/L (-62%).***
- ***VZ-NY Net Income losses -\$1.5B (2010), -\$1.6B (2011), -\$1.8B (2012).***

## Long Term Vision for VZ Business Model



### Legacy Infrastructure

Copper  
OSP  
  
TDM  
Voice  
  
TDM  
Data

Customer Migration

### Long-Term Platforms

FiOS &  
LTE  
  
VoIP  
  
Packet  
Data  
  
Fixed  
Wireless



- Copper OSP
- TDM Switches
- Selected COs

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## Verizon Communications Developing NYS Outside Plant RCNLD



### Calculating Reproduction Cost New is the Sum of All Years Placed :

$$RCN = ( ORIGINAL COST ) \times ( CURRENT INDICE / COST INDICE AT YEAR IN SERVICE )$$

$$RCN = ( QUANTITY OF UNITS ) \times ( UNIT PRICE AT VALUATION DATE )$$

### Calculating Physical Deterioration :

$$RCNLPD = RCN \times ( ( AGE OF PLANT / SERVICE LIFE ) \times ( 1.00 ( - ) NET SALVAGE ) )$$

### Calculating Reproduction Cost New Less Depreciation (Obsolescence)

### Calculating Functional Obsolescence : (not necessarily always present)

$$RCNLPFD = RCNLPD ( - ) FUNCTIONAL OBSOLESCENCE = ( RCNLPD \times F. O. PERCENT )$$

### Calculating External Obsolescence : (not necessarily always present)

$$RCNLD = RCNLPFD ( - ) EXTERNAL OBSOLESCENCE = ( RCNLPFD \times E. O. PERCENT )$$

$$RCNLD \text{ then is } RCN - (PD) = RCNLPD - (FO) = RCNLPFD - (EO) = RCNLD.$$

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## **Hurricane Sandy & Fire Island: The Facts**

### **A Highly Desirable Vacation Destination for Many Metro NY'ers**



- *Barrier Island, Atlantic Ocean, S/S Long Island, Suffolk County, NY.*
- *31 miles long, 1,300 feet wide, 9.6 sq. mi., highway access both ends.*
- *Permanent Pop. +/- 300 swells to many 1,000's in 2 summer months.*
- *Inhabitants have the wealth & political clout of nearby NYC employment.*
- *Available utilities include; electric, CATV, ILEC & wireless service.*

### **Impact & aftermath of Hurricane Sandy (10/29/2012 & after)**

- *Hurricane Sandy destroyed the landline (metallic based) network in Fire Island, along with a lot of the property owned by others.*
- *4,500 homes, 80% damaged, 90 destroyed along with utility infrastructure.*
- *Metallic based landline network at 20% or less utilization prior to the storm devastation, declining utilization trends are expected to continue.*
- *VZ-NY as Carrier of Last Resort is obligated to restore landline network.*

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## **Hurricane Sandy & Fire Island: The Strategy**



- ***The company took the position – we will not rebuild the metallic network with metallic cable because it is inefficient & unprofitable and yet, its still extremely susceptible to another natural disaster.***
- ***Initially the company took the position that they would rebuild the metallic based network with a fiber based FiOS/FTTP network.***
- ***After analysis, the business case for making the fiber optic investment could not justify the expense of investment because the utilization would remain roughly similar (20%) and the new investment would not produce a profit in the short or long-term.***
- ***As such, the company decided to replace the existing network with a fixed wireless product called Voice Link, which was economically feasible to install and maintain and would have the ability to meet all of Verizon's Carrier of Last Resort obligations.***
- ***Initially, the NYS PSC went along with the plan and Verizon decided it would proceed with the Voice Link network plan.***

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## Hurricane Sandy & Fire Island: The Reality



- **Fire Island residents voice concerns w/ proposed new technology:**
  - no high speed data (ILEC metallic-based DSL would be lost!),
  - no fax machines (who faxes today anyway?),
  - no metallic based security systems, and,
  - some fears over backup UPS power supporting the system.
- **VZ still feels Voice Link meets Carrier of Last Resort obligations.**
- **VZ feels high speed data, fax, & security issues can be addressed by competition (CATV providers and/or 4G wireless smart-devices) offered either by VZW or by our competitors (CATV &/or wireless).**
- **At that point public & political pressure was brought to bear;**
  - by the residents,
  - by advocacy groups,
  - by the NYS Attorney General and other local political officials,
  - by the CWA & IBEW,
  - by US Senator Chuck Schumer (from NYS) and by the FCC, and
  - even by the AARP (no.....really!)...but, oddly, not from any college students!

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## Coin Side 1: From the NYS Government



- **Eric Schneiderman, NYS Attorney General states:**

*“The Commission (PSC) should not jettison wire-line service merely because Verizon business strategy prefers a wireless business plan”*

*“The Commission (PSC) should instead require that Verizon divest those portions of its New York franchise where it is no longer willing to continue providing wire-line services and replace Verizon with another carrier that will provide wire-line service....”*

*“Verizon has attempted to install Voice Link service in other portions of New York beyond western Fire Island contrary to its tariff and the Commissions May 16<sup>th</sup> order....”*

*“The only difference from these past weather events and Fire Island’s present circumstances is that Verizon is no longer interested in continuing to serve customers on its copper wire-line network”*

Source: Fierce Telecom, Verizon’s troubled Voice Line deployment faces more pushback from NY Attorney General, dated July 5, 2013

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## 2 Sides to Every Coin: Side 2: Verizon's



### Verizon Communications

- **Lowell McAdam, Verizon Chairman & CEO states:**

*"But the vision that I have is we are going into copper plant areas and every place we have FiOS, we are going to kill the copper. We are going to just take it out of service and we are going to move those services onto FiOS. We have got parallel networks in way too many places now....."*

*"And then in other areas that are more rural and more sparsely populated, we have got LTE built that will handle all those services and so we are going to cut the copper off there. We are going to do it over wireless. So I am going to be really shrinking the amount of copper we have out there...."*

Source: Thomson Reuters Street Events Edited Transcript, Guggenheim Securities Symposium, June 21, 2012

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## & from No One's Side: Fierce Telecom



- **Samantha Bookman, Fierce Telecom Editor states:**

*"The thing is, Verizon's build out was bound to happen eventually, storm or no storm, despite its stoppage of new FiOS deployments elsewhere. Fiber is pretty much where its network is headed, for a number of reasons – lower maintenance costs, much higher speeds and the capability to do a heck of a lot more with an IP-based infrastructure."*

*"But many say, copper is everywhere, it's reliable and it works even when the power is out in your home. Well that's not the case. It certainly wasn't the case for the Verizon's customers, as its COs were flooded and its infrastructure chewed up by salt water."*

*"Sure copper is reliable, but then, so are draft horses. That's why you see so many horse and wagon teams all over the city, right?"*

*"To date, we believe the slow pace of fiber conversions has been limited by several factors including federal/state regulations, unfavorable union work rules, & other CAPEX priorities. (quoted from a Jeffries Company update on Verizon)"*

*"So, get with it, New York .....New York needs to support this move."*

Source: Fierce Telecom, from an Editorial titled "New York City needs to support Verizon's fiber switchover", dated January 7, 2013

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## **Hurricane Sandy & Fire Island: The Resolution!**



- **Initially, the company fought back and tried to defend its Voice Link solution to meet its Carrier of Last Resort Obligation,**
- **But, fear driven, public & political opposition mounted & intensified.**
- **Finally, Verizon relented ..... (with encouragement), .... &, .....**
- **Both US Senator Charles Schumer & Verizon proudly announced Verizon would do the Fire Island restoration with FiOS/FTTP investment & not Voice Link fixed wireless technology.**
- **Disaster was averted & life, as we know it, restored! But....not really,**
- **Because the business case reality remains unchanged;**
  - *metallic cable and FiOS/FTTP investment are not financially feasible,*
  - *have no potential to offer positive short or long-term investment returns,*
  - *and, Voice Link was, and still is, the correct best business case decision.*
- **From a forecasting, valuation & assessment standpoint where does the lesson of Hurricane Sandy, Fire Island & VZ-NY really leave us?**

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## **Hurricane Sandy & Fire Island: The Aftermath**



- **What does this say about the methodology used to forecast the future of the landline & wireless networks & their assessment valuations?**
- **Can new investment be valueless on day 1 of its installation?**
- **What kind of network obsolescence is present in this discussion?**
- **Can the entire existing LEC metallic cable investment be valueless?**
- **Does a 5% good floor (in NYS), or any % good floor, make sense for investment with no potential for profitability (metallic, fiber, or both?)**
- **Should partial retirements of network assets be allowed?**
- **Where do ILEC Carrier of Last Resort & Universal Service Agreements fit in today's competitive communications world, or do they fit at all?**
- **What are we doing to address the fact wireless will displace landline?**
- **Is replacement cost methodology & its underlying theoretical premises a reasonable solution to address these valuation problems?**

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## **One Final Comment extracted from the: NYS Commission on Tax Reform (11/2013)**



- *NYS Governor Cuomo accepted the report of the NYS Commission on Tax Reform Co-chaired by former Governor George Pataki, a Republican, and former NYS Comptroller Carl McCall, a Democrat in November Of 2013.*
- *On page 45 of that 157 page report, the Commission states,*
- *“After preliminary review of the current taxation of the telecommunications industry, the Commission concluded that this topic required a study of its own that could not be completed within the Commission’s time frame.”*
- *“**No other industry has undergone such rapid change. As a result, nowhere are the tax laws more out-of-date than in the taxation of this industry.**”*
- *“**Further, the Commission recommends that a working group undertake the comprehensive study of the taxation of the telecommunications industry, including, but not limited to, real property taxes, state & local excise taxes, franchise taxes, and sales & use tax and provide options or recommendations for improvement.**”*

Source: Report of the NYS Commission on Tax Reform, page 45, dated November 2013