

# HYDRAIL: THE WORD MADE STEEL

## TIG/M AND THE WORLD'S FIRST HYDROGEN STREETCAR FLEET

presented on 11-12 June, 2013 at the  
**8<sup>th</sup> International Hydrail Conference**  
***Ryerson University***  
**Toronto, Ontario, Canada**

Presented for Brad Read, President –  
TIG/m Modern Street Railways  
by Stan Thompson and the  
**MOORESVILLE HYDRAIL INITIATIVE:**  
**MOORESVILLE/SOUTH IREDELL CHAMBER OF COMMERCE**  
And the **MOORESVILLE MORNING ROTARY CLUB**  
Mooresville, North Carolina, USA

A personal perspective:

I've waited for a TIG/m to emerge since at least 2006.

Predicted it in *APTA Passenger Transport* in 2007...

Predicted in *IEEE Spectrum* in 2009...

So: I couldn't *bear* to wait until 2014 to say "*I told you so*" !

## A bit about TIG/m Modern Street Railways:

- a small, relatively new company in L.A.
- provides entire systems, not just cars
- only provides wireless systems, *but...*
- *not* limited to hydrail or to heritage designs



## TIG/m's vision:

- enhance visual environment
- attractive, yet robust, vehicles
- support clients' sustainability goals



## Aruba's the ideal showcase for TIG/m

- 20% wind power grid now
- 100% sustainable energy by 2020 tourism's the main industry
- participant: Sir Richard Branson's *Carbon War Room* project





TIG/m Streetcar in Oranjestad, Aruba





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**TIG/m**  
Modern Street Railways

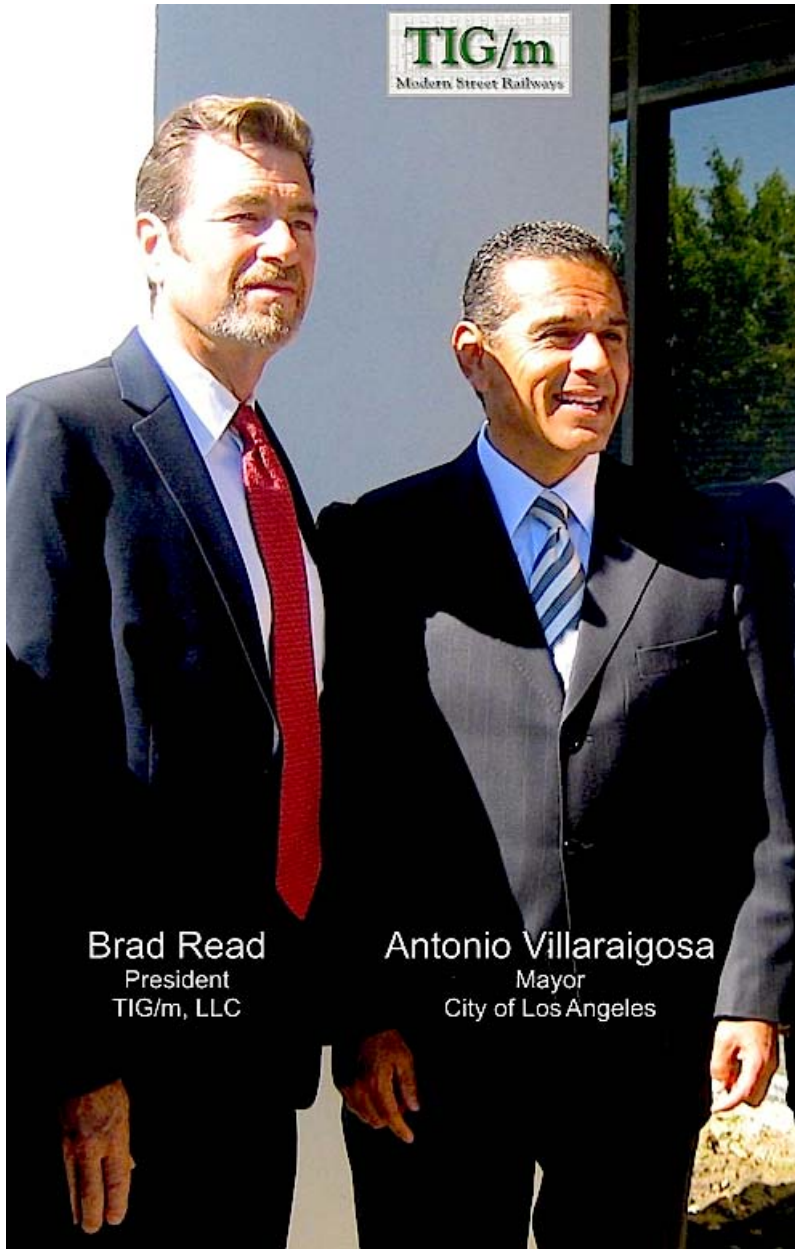


ARUBA'S PRIME MINISTER, MIKE EMAN, AT CONTROLS OF WHAT WILL BE THE WORLD'S FIRST HYDRAIL STREETCAR TO GO INTO REVENUE SERVICE (FALL, 2013; NOW RUNNING ON BATTERY COMPLEMENT, PENDING FUELING STATION COMPLETION).



# Hydrail vehicles for Aruba: made in the USA (Los Angeles)!





**Brad Read**  
President  
TIG/m, LLC

**Antonio Villaraigosa**  
Mayor  
City of Los Angeles

Los Angeles' outgoing Mayor, Antonio Villaraigosa, shares TIG/m's enthusiasm for manufacturing job creation and export revenue.

Hydrail technology will boost both.



## **Derailers on the track to US hydrail streetcars:**

“Big Box” transit design firms have all but squeezed out the small companies that were willing to innovate.

Market domination/concentration makes it hard for municipalities to shop for alternatives to “business as usual.”

No incentive to tolerate—let alone encourage—disruptive technologies, AKA innovations; operators’ savings don’t accrue to Big Box system builders. <sup>11</sup>

Hydrail's route to market: non-Municipal lines.

There's one route-to-market for hydrail streetcars that the "Big Box" system designers can't readily block:

Private developments don't depend on Fedbux.

Private investors will insist on a much lower cost option if it exists; hydrail fills that niche.

Once private systems show that there is a *much less costly* alternative available, the public sector will have to show taxpayers why it shouldn't be chosen over 130-year-old trolley technology.

Currently available hydrail system info:

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