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From the Editor

Alt Fuels = Alt Economics

DigitalCT Editor-in-Chief Scott Bogren covers the articles and stories that comprise this edition of DigitalCT, with an emphasis on the vital connection between alternative fuels in community and public transportation and alternative economics emerging in the field. Click anywhere on the image above to view the video.
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In this edition of DigitalCT, The CT Podcast page features two important conversations. To subscribe to the CT Podcast, go to http://ctpodcast.blogspot.com/ or search “The CT Podcast” in iTunes. Click on the microphone beside each entry to listen!

Wisconsin: A Tale of Two Transit Partners

In this special two-part CT Podcast, we speak with two important community and public transportation partners in Wisconsin: Steve Hiniker with 1000 Friends of Wisconsin and Bruce Speight of the Wisconsin Public Interest Research Group (WISPIRG). Both agencies have compelling connections to good, smart transportation planning, policy and implementation. The focus here is on how community and public transit helps build the types of livable, sustainable communities for which both organizations strive, and how they broaden and amplify the pro-transit message at the state level.

Debunking the Empty Bus Myth

Bob Lasher – Director of External Affairs for the Pinellas Suncoast Transit Authority, serving the St. Petersburg/Clearwater area of Florida – joins the CT Podcast to discuss his agency’s efforts to break through one of the most pernicious myths in community and public transit: the Empty Bus myth. To help local planners and community advisory groups better understand the issue, PSTA developed an excellent video dealing with the empty bus myth. It’s a clear, simple and effective way to reframe the discussion, without stooping to industry jargon. We hope this great video inspires transit leaders, managers and advocates around the country to debunk the empty bus myth in the places they serve.
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Editorial: Better Accessibility is Good for Everyone

Periodically, we receive interesting and useful contributions to DigitalCT magazine from the vendor/exhibitor realm. The following is a great example — the Dallas Smith Corporation takes a look at population demographics and how its low-floor accessible vehicle production and innovation help meet the growing mobility needs of American communities. We agree: Better accessibility is good for everyone. We encourage all vendors and exhibitors to provide similar contributions to DigitalCT, by sending your concepts directly to bogren@ctaa.org.

Over the next 20 years the demand for accessible public transit will increase at an alarming rate with unprecedented growth in the number of seniors retiring and looking to ride transit. Growth in ridership for all forms of public transportation is being driven by increasing numbers in all sectors of the population including younger people, older people, people needing health care, and people going to work.

The U.S. Bureau of the Census reports that the number of Americans over the age of 65 will grow from 40 million in 2010 to 55 million by 2020 as Boomers begin to retire at a rate of 10,000 per day! And, since 40 percent of this group will have some form of disability, the demand for accessible transit will skyrocket. Health Care accessible transit is also on the rise as the shift to outpatient care has made this the largest and fastest growing component of the U.S. health care system. Finally, according to data from 2001-2009, younger people (age 18-34) are driving less (23 percent decrease) and riding public transit more (40 percent increase).

With increased demands being placed on transit systems of all sizes, accessible and innovative vehicles will be required to fill this growing need. The key to serving this market will be in designing the right kind of accessible transit. Regulatory bodies like the Access Board and the Department of Justice are working together with manufacturers, researchers, and transit authorities to provide accessible and innovative vehicles designed to make these trips as safe, affordable, and efficient as possible.

Dallas Smith Corp is an engineering and manufacturing company that focuses entirely on low floor chassis technologies for commercial vehicle applications and has been providing the transportation industry with safer, smarter, and easier transportation solu-
Better Accessibility

Better Accessibility since 1955. Today, Dallas Smith Corp. (DSC) low floor design delivers a durable and dependable low floor transit shuttle bus with no steps, no costly hydraulic lifts, and no raised floor or restricted floor plan to significantly improve accessibility for all passengers.

DSC is also spearheading a research initiative to raise the bar in the transit industry by organizing a group of manufacturers who will work together with researchers, rule makers, testing facilities, special interest groups, user groups, and customers to come up with a uniform, sensible, practical, and affordable transit solution that will meet or exceed the needs of all stakeholders in the transit industry.

The Center for Inclusive Design and Environmental Access (IDeA) at the State University of New York (SUNY) at Buffalo is dedicated to making environments and products more usable, safer, and healthier in response to the needs of an increasingly diverse population. Since 1984, the IDeA Center has been a leading site for research, design, service, education, and dissemination activities related to universal design. The Center was founded by Edward Steinfeld, an architect and Professor of Architecture at the University at Buffalo.

In 2013, DSC and the IDeA Center joined forces on a five-year research project to evaluate the performance of low floor buses which will begin with a usability study to identify areas for further study. The first phase of the project will be to assess the accessibility features of DSC’s “state of the art” Equalizer Ramp technology which actually senses the ground surface during deployment and automatically adjusts to provide all passengers with a consistent slope from the outside all the way to the inside of the self leveling vehicle. The Equalizer is also capable of achieving a gentler slope angle of 1:8 (97.4 percent of user groups are able to complete) versus the steeper 1:4 slope angle currently specified by the ADA (only 74.6 percent of user groups are able to complete). This phase of the project will be completed by June 2014.

Today, 80 percent of older Americans stated that they would use public transit if it were more convenient and more accessible. That means that only 20 percent of older Americans are being adequately served! Furthermore, younger Americans also appreciate easier access vehicles. What are we doing wrong?

We need all transit industry stakeholders to challenge the status quo and work together to find the answer…and soon!

Remember, Better accessibility is good for everyone. CT
More On Alt Fuels: 
A Look Back at DigitalCT’s Coverage of Fueling Options

Although this edition of DigitalCT focuses primarily on new trends and strategies for alternative fuels and alternative fueled vehicles, we’ve highlighted numerous other examples of similar applications in past editions of DigitalCT. Here’s a look back...

In our Minnesota Transit Tour edition (Summer 2013), we profiled St. Cloud’s Metro Bus and the Duluth Transit Authority, both of which operate alternatively-fuelled vehicles.

Our profiles of Innovative Transit Leadership (Winter 2013) included crucial alt fuels coverage in our Applied Technologies section. Click here to read the article.

We looked at how Lake Erie Transit is utilizing a new biodiesel fueling station to lower operating costs in our Illuminating New Solutions edition (Summer-Fall 2012)

Our Summer 2012 state profile of transit across New Mexico included an in-depth look at Santa Fe Trails’ extensive alt fuels initiative.

Our coverage of transit in campus communities in our Winter 2012 edition led us to the e2 Taxi company in Bloomington, Ind., and their innovative use of hybrid sedans.
Clean Power for Transport: The European Commission Examines Alternative Fuels Challenges and Opportunities

Earlier in 2013, the European Commission, in response to its significant reliance on foreign oil, developed a Clean Power for Transport package that sets continent-wide alt fuels standards and that defines and analyses various alt fuels and their strengths and weaknesses. It is a powerful document that we thought bears sharing with the North American community and public transportation industry. What follows is an excerpted section of that important report – ed.

European transport is 94 percent dependent on oil, of which 84.3 percent is imported, and faces increasing fuel supply insecurity as oil comes from increasingly unstable regions of the world, and a high and rising oil import bill (€1 billion per day in 2011). All of which causes a deficit in the balance of trade (around 2.5 percent of GDP). It is clear that EU transport must diversify its energy sources.

The Commission’s Transport 2050 Strategy – from 2011 – aims to break EU transport’s dependence on oil and proposes a target of 60 percent greenhouse gas emissions reduction by 2050. It sets goals for the different modes of transport, including CO2-free city logistics in major urban centres by 2030, halving the use of conventionally fuelled cars in urban transport by 2030, and phasing them out in cities by 2050. It also envisages 40 percent CO2-low aviation fuels by 2050, and 40 percent CO2 emissions reduction from ships. These goals cannot be achieved with conventional fuels but require a big share of alternative fuels.

Alternative fuels can help to reduce Europe’s air quality problems. The EU is this year reviewing its air quality policies in order to meet the threat to human health and the environment from poor air quality. It is estimated that there were 420,000 premature deaths from air pollution in the EU in 2010. Much of the air pollution is caused by petrol and diesel burning motor vehicles.

Energy efficiency in transport and effective transport management can substantially contribute to reducing emissions and oil consumption. However, they are not an alternative to oil substitution but a bridge to alternative fuels. Alternative fuels are the ultimate solution to decarbonise transport,
by gradually substituting the fossil energy sources which are responsible for the CO2 emissions from transport.

Single-fuel solutions covering all transport modes would be technically possible with liquid biofuels and synthetic fuels (gas-to-liquid and biomass-to-liquid). But feedstock availability and sustainability considerations constrain their supply potential. Thus the expected future energy demand in transport can most likely not be met by one single fuel. Fuel demand and greenhouse gas challenges will require the use of a large variety of primary energies. There is widespread agreement that all alternative fuels will be needed to resolve the expected supply–demand tensions. In the short term, alternative fuels will also contribute to the achievement of the 10 percent transport target established by the Renewable Energy Directive.

The current share of renewable energy in transport in the EU is 4.7 percent. Biofuels are the main contributor to this, with 4.4 percent in 2010.

According to the national renewable energy action plans (NREAPs) submitted at the end of 2010, Member States intended collectively to slightly over-achieve the 10 percent target. They intended to use about 8.5 percent first generation biofuels, 1 percent second generation biofuels and 1 percent renewable electricity, most of the latter in railways rather than in cars. The contribution of hydrogen in those plans was negligible.

However, with the Commission proposal amending the Renewable Energy Directive – from 17 October 2012 – limiting the use of first generation biofuels to 5 percent, the Member States need to adapt their action plans to meet the 10 percent target with other renewable fuels such as biomethane, renewable electricity and hydrogen.

The main options for the different transport modes are: liquefied petroleum gas (LPG), natural gas and biomethane (in the forms of CNG, LNG and GTL), electricity, biofuels and hydrogen.

Alternative fuels already exist, and in many cases the relevant technology is mature enough for market deployment. However this market development still has major hurdles to overcome on the way to a broader uptake. A common issue for all alternative fuels (except LPG) is the lack of infrastructure for energy supply to the customer (refuelling/recharging points). The build-up of infrastructure therefore is a necessary – though not sufficient – condition for a broad market development of all alternative fuels. Moreover, even when this infrastructure exists, the relevant standards are not the same EU-wide.

At the moment we are caught in a vicious circle. Investors do not put their money into building alternative fuel infrastructure because there are not enough vehicles and vessels to use it. These, in turn, are not offered by manufacturers at competitive prices as there is not enough consumer demand. And consumers do not buy the vehicles because the infrastructure is not there. There is a gap between successful demonstrations and the real market, which the private sector is unable to reach at the moment.

Current Situation – Key figures

The current and foreseeable situation of the development of alternative fuels in Europe and worldwide is the following.

A breakdown of worldwide sales of electric vehicles (EVs) in 2011 shows that the United States (19,860) is by far the biggest market for EVs, followed by Japan (7,671) and some European countries: Germany (1,858), France (1,796), Norway (1,547) and UK (1,170). China only sold 1,560 EVs and India 585. 7,500 charging points are installed in the US, 1,500 in China and 1,100 in Japan. In the EU, there are 1,937 charging points in Germany, 1,700 in the Netherlands, and 1356 in Spain (2011 data).

On the basis of the national plans, it is expected that the diffusion of electric vehicles and plugged hybrid electric vehicles (PHEVs) will be as follows: in the US 1 million vehicles by 2015, China 5 million vehicles and 10 million charging points by 2020. France expects to have 2 million vehicles by 2020, Germany 1 million by the same year; UK 1.55 million and Spain 2.5 million.

The introduction of hydrogen and fuel-cell vehicles is very limited to date; several hun-
Clean Power for Transport

demonstration vehicles (cars, buses) and just over 200 fuelling stations are active worldwide (120 of them in the EU), with over 100 more at the planning stage. Major OEMs including Daimler, Toyota, Honda, GM, Hyundai, Nissan, are preparing for first product roll-out around 2014/2015, though this will only amount to several thousand vehicles in the run-up to 2017. Germany, Japan, Korea and the US lead – with China and India now making early moves. In the EU, Scandinavia, UK and Italy are also active.

Regarding natural gas vehicles; in 2011 there were 15.2 million in the world, representing 1.2 percent of the total stock. In the EU there are 1 million vehicles, which represents 0.5 percent of the entire fleet. The number of CNG vehicles in Italy was about 746,000 and in Germany almost 100,000. The number of refuelling points in these countries was 903 in Germany and 853 in Italy.

There are 38 LNG filling stations in the EU, 22 in United Kingdom, and the rest in Spain, Sweden, Estonia, the Netherlands, Poland and Belgium. For the near future, a further 12 LNG/L-CNG stations are planned to be built in the framework of the LNG Blue Corridors project, accompanied by the deployment of a fleet of approximately 100 LNG heavy duty vehicles.

LNG maritime terminals exist in Belgium, the Netherlands, United Kingdom, Sweden, and Norway. There are more than 40 small-scale LNG terminals in Norway. In addition there are plans to establish additional 16 terminals in Poland, Lithuania, Sweden, Finland, Germany, France and United Kingdom in the near future.

The main biofuels currently used in road transport are bioethanol blended with petrol and biodiesel blended with diesel. There are mainly three large biofuels markets in the world: Brazil, US and the EU, with the first two focusing on bioethanol; biodiesel is more used in the EU.

As regards bioethanol, in 2010 its energy share in motor petrol for road transport was 18 percent in Brazil, 6 percent in the US and 2.9 percent in the EU. As regards biodiesel, in 2010 its energy share in transport diesel for road transport was 6 percent in Brazil, 5 percent in the EU and 1 percent in the US.

Europe is already a leader in petrol and diesel car manufacturing. This leadership could be maintained because Europe’s car and equipment manufacturers have the potential to become world leaders in the new and growing sector of alternatively fuelled vehicles.

What Are Alternative Fuels?

The main fuels are: liquefied petroleum gas (LPG), natural gas and biomethane (in the forms of CNG, LNG and GTL), electricity, biofuels and hydrogen.

LPG (liquefied petroleum gas) is a by-product of the hydrocarbon fuel chain, currently resulting from crude oil and natural gas, and possibly also from biomass in the future.
LPG can be used for road transport (for cars and trucks) for all range of distances. It can also be used for inland waterborne transport as well as for short sea shipping. LPG is currently the most widely used alternative fuel, with approximately 9 million LPG vehicles running in the EU. Infrastructure is well developed with a significant number of filling stations already present in the EU (approximately 28,000). However, this infrastructure is unevenly available in some Member States.

Natural gas and biomethane can be sourced from fossil natural gas or from biomass and wastes as biomethane, injected into the general gas grid.

- CNG vehicles are based on mature technology, using conventional internal combustion engines. A reasonable choice of vehicles has been developed in recent years. A major obstacle to broader market introduction is the lack of refuelling infrastructure in a large part of Europe. CNG can be used for all road vehicles over short and medium distances.

- LNG is an attractive option for trucks and ships due to its high energy density and low pollutant emissions. Vehicle technology is mature. Broader uptake is hampered by the lack of infrastructure.

- Gas-to-Liquid (GTL) is suitable for cars and trucks over all distances. No dedicated infrastructure is necessary because this kind of fuel is fully fungible with conventional fuels.

Electricity as a power source for vehicle propulsion allows a radical change in energy supply to transport, from a single energy source, such as oil, to a universal energy carrier, which can be produced from all primary energy sources. Local emission of pollutants from transport is completely suppressed when using electricity for propulsion. Electric vehicles therefore are ideally suited to urban areas.

Reductions of CO2 emissions of some 30 percent are obtained when replacing an internal combustion engine vehicle by an electric vehicle (powered by the EU electricity mix). Electricity can be used for cars, buses, vans and over short distances. It is also suitable for two-wheelers (particularly common in France, where 160,000 two-wheelers were sold in 2011).

Hydrogen powered fuel-cell vehicles provide longer range than battery electric vehicles. Refuelling times are short and comparable to present internal combustion engine vehicles. The main drawbacks of hydrogen-powered vehicles are the high cost, mainly due to expensive fuel cells, and the lack of refuelling infrastructure. Hydrogen requires the construction of new distribution and refuelling infrastructure. The GHG reduction potential of hydrogen depends on the primary energy sources used. On-vehicle carbon emissions are zero.

Biofuels could technically substitute oil in all transport modes, with existing power train technologies and refuelling infrastructures. The production of biofuels, however, is limited by the availability of land, and sustainability considerations.

The main advantages of liquid biofuels are their high energy density and the compatibility with existing vehicles and fuel distribution infrastructure, up to certain limits in concentration.

What Is The Problem?

The full-scale deployment of clean fuels has been held back by three main barriers: the high retail cost of vehicles, a low level of consumer acceptance and the lack of infrastructure for recharging and refuelling.

At the moment there is a vicious circle where investors do not invest in alternative fuel infrastructure as there are not enough vehicles and vessels. The manufacturing industry does not offer alternative fuel vehicles and vessels at competitive prices as there is insufficient consumer demand. And consumers do not purchase the vehicles and vessels due to the lack of dedicated infrastructure.

The availability of recharging/refuelling stations is not only a technical prerequisite for the functioning of alternative fuel vehicles, but also one of the most critical components of consumer acceptance. The importance of...
infrastructure for alternative fuels has been recognised by a large number of Member States, regional and local authorities.

Policy initiatives from the EU and Member States have mostly addressed the development of alternative fuels and/or alternatively fuelled vehicles and vessels, without considering the need for the build-up of an appropriate alternative fuel distribution infrastructure. The efforts of the Member States and the EU to incentivize the development of alternative fuel infrastructure have therefore been uncoordinated and insufficient.

What Is The European Commission Proposing?

The Commission is proposing action to ensure the necessary infrastructure build-up across Europe, with common standards for interoperability.

The minimum coverage requirement of recharging/refuelling points for electricity, hydrogen, LNG for maritime waterborne and road transport and CNG shall be implemented before 31 December 2020. The minimum infrastructure coverage requirement for LNG for inland waterway transport shall be implemented by 31 December 2025 at the latest.

The relevant technical standards for the same fuels shall be adopted and implemented before 31 December 2015. Member States shall ensure that clear and simple information on the compatibility between fuels and vehicles is available by the date this directive has to be transposed into national law.

No public spending is required for the build-up of alternative transport fuel infrastructure if the Member States use the wide range of measures available to mobilise private investment cost-efficiently.

What is Proposed to Support the Development of Infrastructure for Electric Vehicles?

Recharging points

The current situation: the situation for electric charging points varies greatly across the EU. The leading countries are Germany, France, the Netherlands, Spain, Austria and United Kingdom. Therefore, the network is focused on key cities and there is not yet a critical mass for the development of the market.

Germany established a target of 1 million vehicles by 2020. €4 billion will be devoted to promoting electric cars until 2015.

The United Kingdom established a target of 1.55 million vehicles by 2020. €300 million will be devoted to promoting electric cars between 2009 and 2014.

France established a target of 2 million electric vehicles by 2020. In addition to introduction schemes for consumers up to €7,000, France will devote more than €450 million to install adequate public charging infrastructure in its 25 biggest urban areas by 2014.

Spain established a target of 250,000 BEVs and PHEVs by 2014 and 2.5 million EVs by 2020.
The proposal: A minimum number of recharging points is required for each Member State. This number is based on the number of electric vehicles planned in the Member States. 10% of these should be publicly accessible (see table below).

The total estimated cost for the proposed development of electric charging points in the EU will be approximately €8 billion.

The impact: The aim is to put in place a critical mass of electric charging points where it becomes interesting for investors and companies to mass produce the cars at a reasonable price for a growing market and where consumers have the confidence to buy the cars.

Minimum number of electric vehicle recharging points in each Member State.

Technical specifications

The current situation: there are two main different types of charging points in Europe. This could lead to a situation where a car that travels from France to Germany cannot be refuelled.

The proposal: Common standards for electric charging points across Europe must be designed and implemented by December 2015.

The impact: The aim is to ensure that electric cars can circulate freely across the EU.

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What is Being Proposed to Support the Development of Infrastructure for Hydrogen?

Refuelling stations

The current situation: Germany, Italy and Denmark already have a significant number of hydrogen refuelling stations: 42, 21 and 14 respectively. Some of them are not publicly accessible. There are some 120 hydrogen refuelling stations all over the EU for approximately five hundred hydrogen and fuel-cell vehicles.

In the EU, several Member States have established plans for hydrogen infrastructure deployment. In June 2012, Germany has announced the expansion of its refuelling network focusing on the country’s metropolitan regions and the creation of corridors connecting these regions. Denmark has also announced an infrastructure programme earlier this year, whose objective is to establish national coverage by 2015.

The proposal: Existing filling stations must be complemented to form a network ensuring the mobility of hydrogen vehicles in those countries where activities on hydrogen powered fuel-cell vehicles are already under way. The proposed rules will ensure that a sufficient number of publicly accessible refuelling points are available, with maximum distances of 300 km, to allow the circulation of hydrogen vehicles Union-wide by 31 December 2020.

The total estimated cost for the proposed development of hydrogen refuelling stations in the EU will be approximately 123 million.

The impact: This measure will complement the existing network in order to facilitate the mobility of hydrogen and fuel-cell vehicles in those European areas which have installed a certain hydrogen infrastructure.

Technical specifications

The current situation: Draft international standards already exist. However, standards are still needed for certain components such as fuel hoses and permitting for fuel stations, including trucked-in hydrogen, trans-filling and fuel dispenser and vehicle tank information protocols (to enable optimum refuelling).

The proposal: Common standards for refuelling stations for hydrogen cars must be developed and implemented by 2015.

The impact: This will ensure that HFC (hydrogen and fuel cell) vehicles can circulate across the defined EU hydrogen network.

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What is Proposed to Support the Development of Infrastructure for Natural Gas Vehicles?

Refuelling stations

Road transport (LNG)

The current situation: There are 38 LNG filling stations in the EU: 22 in United
Kingdom, with the rest disseminated in Spain, Sweden, Estonia, Netherlands, Poland and Belgium. Germany, Italy, Spain, Sweden, and the UK are planning to promote LNG for trucks. Sweden and the UK also plan the promotion of liquefied biomethane.

For the near future, a further 12 LNG/L-CNG stations are planned to be built in the framework of the LNG Blue Corridors project, accompanied by the deployment of a fleet of approximately 100 LNG heavy duty vehicles.

Seven different LNG refuelling stations trials will be tested four different technologies in Spain under the project “Garnet” funded under the TEN-T budget line.

The proposal: The Commission is proposing that, by 2020, along the roads of the Trans-European Transport Core Network refuelling stations are installed every 400 km. This distance is set to allow the proper degree of flexibility for truck drivers, as an LNG truck has an autonomy of about 800–900 km.

The total estimated cost for the proposed development of LNG refuelling stations for trucks in the EU will be approximately € 58 million.

The impact: The TEN-T core network covers the main transport corridors across Europe. It is estimated that some 181 LNG refuelling stations will be built and therefore an important market development is expected for LNG heavy duty vehicles, which will replace diesel trucks.

CNG

The current situation: There are one million of vehicles running with this fuel, which represents 0.5 percent of the EU-27 vehicle fleet. The industry aims to have 5 percent of the fleet by 2020. Higher market growth rates are expected in Bulgaria, Germany, Italy, the Netherlands, and Sweden.

The proposal: The proposed rule will ensure that a sufficient number of publicly accessible refuelling points are available, with maximum distances of 150 km, to allow the circulation of CNG vehicles Union-wide by 31 December 2020.

The total estimated cost for the proposed development of CNG refuelling stations for road transport vehicles in the EU will be approximately 160 million.

The impact: This density of refuelling points will allow CNG vehicles to circulate in the whole EU. The impact of this proposal will be lower for Germany and Italy, which already have 839 and 811 publicly accessible CNG refuelling stations respectively.

Technical specifications for LNG and CNG

The current situation: LNG is mainly used in Italy, Spain, Sweden and the United Kingdom under the respective national standards.

The proposal: Common standards for LNG and CNG refuelling stations for cars, trucks and vessels must be developed by December 2015.

The impact: It is expected that manufacturers producing this equipment will benefit from a sufficiently large EU market to allow for economies of scale.

What Measures are Proposed for Other Alternative Fuels?

No EU action is foreseen for biofuels, LPG and synthetic fuels. There are several reasons for this non-action:

Low-blend biofuels do not need additional infrastructure. Moreover, advanced biofuels will not require new infrastructure.

The LPG core infrastructure is already established. More than 28,000 filling stations are in service in the EU-27 and over 9
Million vehicles are circulating in the EU-27. The industry has set out a voluntary standard (EN 14678) which outlines technical and safety requirements for LPG filling stations. This standard should be commonly used.

Gas-to-liquid and biomass-to-liquid fuels (synthetic fuels) are fully fungible with conventional fuels and do not need specific infrastructure; therefore EU action on infrastructure development is unnecessary.

**What is Proposed for National Strategies?**

Member States should implement national frameworks containing at least the following elements:

- An assessment of the current situation and future development of the different alternative fuel options in the Member State;
- Continuity of alternative fuel infrastructure network, providing an assessment of the trans-border continuity of the infrastructure coverage for the different alternative fuel options;
- National targets for 2020 to be defined for the deployment of alternative fuels in the different transport modes and for the relevant infrastructure;
- Information on the regulatory framework, containing regulatory measures to support the build-up of alternative fuel infrastructure, such as building codes, parking lot permits, environmental performance of businesses certification, fuel station concessions.

Member States should also define possible supporting measures such as:

- Direct incentives for purchase of alternative fuel vehicles and vessels or infrastructure;
- Possible tax incentives to promote alternative fuels vehicles and vessels and infrastructure;
- Use of public procurement in support of alternative fuels, including joint procurement;
- Demand-side management measures: e.g. access restrictions, parking policy, dedicated lanes;
- Deployment and manufacturing support;
- Research and development and demonstration.

**Frequently Asked Questions**

**Why are mandatory targets only given for certain fuels in the strategy? What about the other fuels?**

All main alternative fuel options still have major hurdles to overcome on the way to a broader market uptake. A common issue for all of them is the lack of sufficient infrastructure for energy supply to the customer (refuelling/recharging).

However, the legislative proposal only considers those fuels that suffer from a particularly weak introduction on the EU market or in most of the Member States, and for which the necessary investments in infrastructure are significantly uncertain. These fuels are: electricity, CNG, LNG for both road and waterborne transport, and hydrogen.

No EU action on infrastructure deployment is necessary for the following fuels:

- Liquid biofuels can be used with the existing powertrain technology and infrastructure, or with minor modifications in various blending ratios depending on biofuel types;
- Gas-to-liquid (GTL) does not need specific infrastructure because they are fully fungible with conventional fuels;
- For liquefied petroleum gas (LPG) there is a network of 28,000 filling stations and a voluntary standard (EN 14678) already exists.

**Why are mandatory targets for infrastructure necessary? Will the market not develop by itself? Will new companies not come in to invest in a new opportunity?**

The initial costs for alternative fuel infrastructure are generally higher than those of petroleum-based fuels, especially due to the lack of economies of scale and the small number of circulating vehicles (“chicken and egg” problem). There is a vicious circle whereby investors do not invest in infrastructure as there is an insufficient number of alternative fuel vehicles and vessels, the
manufacturing industry does not offer alternative fuel vehicles and vessels at competitive prices as demand is slack, because consumers do not purchase alternative fuel vehicles and vessels as the alternative fuel infrastructure is lacking.

In this respect, it is necessary to set up a policy framework to create the conditions for fuel suppliers and distributors to invest in this sector with confidence.

In particular, first-mover investors would be instrumental for the development of an alternative fuel infrastructure network, especially for highly capital-intensive investments like LNG terminals or hydrogen filling stations. First-mover investors and – to a lesser extent – follower investors are confronted with high up-front costs and uncertain payback times for investments due to the low diffusion of alternative fuel vehicles and vessels and, as a result, the initially slack demand for these fuels.

The policy instruments that have been identified as apt to protect first investors are: the granting of exclusivity rights to first-mover investors, awarding concessions, direct public financial support, public guarantees, self-regulation through strategic alliances and the use of public procurement. The choice of the appropriate policy instruments should be up to each Member State on a case-by-case basis.

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**China’s Alt Fuel Bus Policy: Ten Cities, 1,000 Buses**

Facing unprecedented, rapid urbanization — along with dramatic clean-air issues — China has launched a program designed to significantly change the face of public transportation in its largest cities by deploying alternative fuels technology.

The 2010 Shanghai World Expo announced China’s plans under the motto: Better City, Better Life. By 2030, demographers expect more than 1 billion Chinese will live in urban cities. Alongside this motto came a more specific goal: 10 cities, 1,000 buses, which called for China’s 10 largest cities — including Beijing, Shanghai, Chongqing, Shenzhen, Wuhan and Zhuzhou — to each put 1,000 alternative fueled buses in service in the next three-to-four years. The initiative is a direct response to China’s status as the world’s leading emitter of carbon dioxide, a dubious title it won in 2006. Today, 16 of the world’s 20 worst air-quality cities are in China.

According to the *Asia Times*, electric buses are the most promising alt fuel vehicles in China, as a new generation of battery technology and infrastructure make them more competitive in both price and efficiency. Among the various types of electric buses likely to be most prevalent in Chinese cities are hybrid-electric buses using lithium-ion batteries; trolley buses using overhead electric wires; and, ultracapacitor vehicles that use overhead recharge stations at bus stops.

Buses account for 70 percent of all forms of public transportation in China, with more than 600 million passenger trips in 2011. To meet the growing demand, Chinese bus manufacturers — focusing on alternative fueled vehicles — are emerging in record numbers. In 2010, China accounted for a full third of all global bus sales.
How much will the new infrastructure cost? Who will pay for it given that public funding is now very scarce? What is the impact for the EU?

The total cost for the EU is approximately €10.5 billion between now and 2020. The cost share among Member States will be based on the number of km and the number of maritime/inland ports included in the TEN-T Core Network (and the TEN-T Comprehensive Network for CNG), as well as by the number of electric vehicle charging points to be installed in each Member State.

The number of electricity recharging points to be mandated in each MS is calculated by the following formula:

No public spending is required for the build-up of alternative transport fuel infrastructure if the Member States use the wide range of measures available to mobilise private investment cost-efficiently.

With alternative fuels coming gradually into the market, savings on the oil bill are expected to increase to about €2.3 billion per year in 2030, and another €1 billion per year from dampening of price fluctuations through improved security of energy supply.

Build-up of alternative fuel infrastructure will contribute to economic growth and support job creation in a sector of growing importance for Europe and worldwide. This will improve the competitiveness of EU industry in the fields of alternative fuel technologies for all modes of transport – in particular the automotive and shipping industries.

The build-up of a European alternative fuel infrastructure will allow for free movement of goods and persons, with vehicles running on alternative fuels across the whole EU. This will facilitate the development of a single EU market for alternative fuels which will permit the industry to benefit from economies of scale.

**Useful Definitions**

**Alternative Fuels - What they are and what they are used for**

**Liquefied Petroleum Gas (LPG)**

Liquefied Petroleum Gas (LPG) or autogas is a by-product derived from oil refining and natural gas processing. Bio-LPG derived from various biomass sources is expected to emerge as a viable technology in the medium to long term. LPG can be used for road transport (for cars, and trucks) for all range of distances. It can be also used for waterborne transport for inland as well as for short-sea shipping.

**Natural gas**

Natural Gas and Biomethane can be used in the forms of Compressed Natural Gas (CNG), Liquefied Natural Gas (LNG) and Gas-To-liquid (GTL).

Natural gas and biomethane are considered as a single fuel (CH4 methane). It can be sourced from fossil natural gas or from biomass and wastes as biomethane.

CNG can be used for all road vehicles over short and medium distances.

LNG (Liquefied Natural Gas) is appropriate for waterborne transport, trucks and rail.

GTL (Gas-To-Liquid) can be used to produce a synthetic fuel with the same technical characteristics of conventional fuels. For this reason it is fully compatible with existing combustion engines and fuel infrastructure.

**Electricity**

Already widely used for railways, electricity can also power road cars and vans in urban...
areas and short distances. Electricity provides clear advantages as alternative transport fuel and is world-wide recognized as one of the more promising options for the future. The electricity grid already exists and only charging stations remain to be developed.

Biofuels

Biofuels can be produced from a wide range of biomass feedstock. Liquid biofuels technically can be used for propulsion in all transport modes and can be used with existing power train technologies, for certain biofuels with minor technical modifications, and existing re-fuelling infrastructures in various blending ratios depending on biofuel types. Biofuels are used blended up to 10 percent for bioethanol and 7 percent for biodiesel.

Hydrogen

Hydrogen is the most abundant element in nature. As an energy carrier it can be produced from any source (fossil, renewable, nuclear). Electricity from renewable sources can be used to produce hydrogen by electrolysis, thus introducing renewables into the transport energy chain. The cheapest method for volume production is by steam reforming natural gas. Hydrogen and fuel cell can be used for short and medium distances for cars and buses. CT
Choosing Fuels for Your Fleet:
Three Technologies That Can Change How Your Fleet Runs

By Kelley Lindsey

As we developed this special edition on alt fuels and community and public transportation, we wondered what considerations other fleet-based industries take into account when making their buying decisions. Public Works magazine provides precisely that insight in the following article. You won't see the perspective of community and public transit managers is this article, and that's exactly the point. What you will find, however, is an honest assessment of how fleet managers are appraising new alt fuels technology and deploying them into their operations – ed.

With soaring gas prices and emissions standards set to cut carbon dioxide and greenhouse gases 20 percent by 2014, alternative fuels are gaining popularity. Major manufacturers of vehicles ranging from garbage trucks to personal vehicles are exploring various technologies.

Diving into the world of alternative fuels can be confusing. Following are examples of fuels that are available, and how they are impacting public works operations.

Compressed Natural Gas

Waste management and resource recovery company Veolia Environmental Services uses compressed natural gas (CNG) because it’s a domestic alternative energy solution, there’s an abundant supply, it’s cost effective, and it doesn’t damage truck engines.

In addition to owning CNG fleets and fueling stations in Ft. Myers, Fla., Evansville, Ind., and Northbrook, Ill., the company recently launched a CNG fleet in Wisconsin: 13 waste collection trucks that service the greater Madison area. Chad Mark, director of business improvement for Veolia, says public reaction has been positive. “It’s pretty hard to have a community not like it,” he says.

According to Dan Cowher, Veolia’s fleet director, a municipality planning to switch to CNG can expect an initial investment of around $25,000 to $40,000 for each chassis, plus the cost of the filling station. A filling station that accommodates eight trucks costs about $400,000, a station servicing 35 to 50 costs between $1.2 million and $1.3 million, and one servicing 50 to 85 costs between $1.3 million and $1.5 million.

Veolia owns, operates, and maintains all fueling stations for its CNG fleets. Customers pay for this service. In return, they receive the convenience and operational efficiency of not having drivers waiting around to fuel vehicles. At the end of the day, the driver simply connects the vehicle’s fuel tank to the pump’s Slow Fill connection, and the tank refills overnight.

Liquefied Natural Gas

Peterbilt Motors Co., manufactures both CNG and liquefied natural gas (LNG) trucks. Whereas CNG is better for short-haul vehicles, LNG is better for long trips, says Landon Sproull, chief engineer for Peterbilt. Liquid is more dense than gas (CNG) and, therefore, more energy can be stored by volume in a given tank.
Choosing Fuels for Your Fleet

More than 25 U.S. municipalities are using propane fleets already. Bob Toppen, equipment manager of the King County Fleet Administration in Washington State, says propane was a good choice for his fleet because fitting vehicles with propane tanks doesn’t take up vehicle bed space.

Toppen says drivers usually don’t feel a difference when driving propane- as compared to gas-powered vehicles. There is a slight difference when it comes to fueling, however. Although the process is almost exactly the same as fueling with a gas fuel pump, the nozzle has to be threaded on prior to each fueling session. So even though municipalities have their own fueling stations installed, propane companies take care of the fueling process for the customer.

When asked if he would recommend this technology to other municipalities, Toppen answers “Absolutely.” He warns, however, that green vehicles won’t do you any good if their abilities are lost in the transition. Roush’s Mouw also stresses that picking your fuel system provider is essential: “Do the right homework and pick the right partner who won’t lie to you.”

One factor that’s boosting the popularity of alternative fuels is cost savings. All three fuels are all currently cheaper per gallon than diesel fuel. They also have lower emissions and are manufactured domestically.

With 2014 quickly approaching, Mouw says the time to begin considering alternative fuels is now. “A few years ago no one wanted to be the first to jump into the water, so to speak, but someone had to jump in — and so far they like the temperature.”

Will your fleet be the next to jump?
The annual Community Transportation EXPO is your chance to join colleagues from around the nation in a setting dedicated to fresh ideas, innovative products and services, networking and learning. EXPO is a meeting place for people who want to expand their horizons on issues of mobility, transportation and how to build strong communities. People who attend EXPO are operators of community transportation systems, drivers, supervisors, dispatchers, safety and security officers, local planners, mobility managers, workforce development professionals, elected officials, federal, state and local government administrators and anyone interested in building a more safe and mobile society.

**Why Should You Attend?**

This year’s conference brings us to St. Paul, Minn., and the Saint Paul RiverCentre. The EXPO 2014 host hotel is the Crown Plaza St. Paul Riverfront. In addition to the important discussions on the legislative front, there will be dozens of training sessions, workshops and networking events that will allow you to advance your understanding of transit issues, develop fresh solutions to challenging issues and help you outline new approaches to your work.

**EXPO’s Can’t – Miss Events Include:**

- The National Community Transportation Roadeo
- One, two or three day intensive training sessions
  - The Community Transportation Trade Fair
- Professional Development Sessions on vital mobility issues, and
  - Dynamic general sessions

For more information, visit:

**www.ctaa.org/expo**
How Innovative Fuels Can Meet Your System’s Needs

As alt fuels technology advances, the number of options available also grows. In this collection culled from the web site, Alternative Energy News, we offer some of the more unique community and public transportation alternative fuel technologies and strategies. Though we understand that the following list includes entries likely impossible to implement for some of our readers, we offer it to provide some insight into where the alt fuels industry may be headed and how future technologies may be applied to the transit field.

In the last hundred years we have made monumental advances in our transportation technologies. Wonderful inventions such as the train, bus and airplane have allowed us the freedom to travel and explore this great planet for a lower price. Industrialization gave us the ability to mass produce public transit vehicles so that everyone could be free to move. Unfortunately we are still using primitive and environmentally harmful petroleum fuels to propel our mass transit servic-
es. This page explores alternative methods of public transportation that seek to lessen the environmental impact of public transit.

Prototype Solar Power-Assist for Buses

Sunpods Inc., is California-based manufacturing company. They produce modular, fully integrated and tested solar power generation systems. Recently they have come out with an idea of the first solar power-assist system for buses. They should be applauded for developing it in a mere six weeks. Their partner is Bauer Intelligent Transportation. The system developed by Sunpods will help Bauer to meet strict anti-pollution standards laid down by the State of California. California state law since 2008 has disallowed diesel vehicles to remain idle for more than five minutes. Now more than 25 states across the United States have anti-idling laws.
The Toyota Bus-Train

A dual mode road/rail vehicle is being tested in Japan by Toyota and its truck-manufacturing division Hino Motors. The bus bridges the gap between road and rail with four rubber tires for road use and four steel wheels for riding on rails. It can hold 25 passengers and is based on the Toyota Microbus. The bus has been in service in Japan for the past 18 months, and there are plans to produce a newer version by June of 2008. Hino spokesperson Kenichiro Baba has stated that the bus “is expected to be another step toward more practical use of the dual mode vehicle.” This could be the mass transit vehicle of the future for Japanese commuters.

JPod Transportation Concept

Minnesota based JPods LLC and Swiss-based Festel Capital have signed a letter of intent to begin raising capital to commercialize JPods’ patented form of Personal Rapid Transit (PRT) in Germany, Austria, and Switzerland. The JPod system supplies power to the JPod vehicles via power conductor cables supported from the rail support structure. The system is designed to endure the worst extremes of weather and can travel at speeds up to 30-40 miles per hour. The load capacity depends upon the type of vehicle. A standard people JPod can carry four people with a generous margin on normal weight.

Advantages of Biodiesel Fuel for Transportation

Modern diesel engine technology has advanced to the point where the advantages of biofuel usage are becoming much greater than the disadvantages. Modern diesel engines produce less noise, smoke or vibrations and they are more fuel-efficient than older model engines. Diesel engines have added the advantage of greater acceleration when compared to gasoline engines on the same model of vehicle. The use of biodiesel fuel may be the solution to the increasing transportation energy crisis, particularly in the farming and shipping transportation sectors.

Diezel-Electric Hybrid Train

Trials will start next year on what is being billed as Europe’s first hybrid high-speed train, which can cut emission levels by up to 50 percent. The system, which has been developed by Hitachi in Japan, consists of a battery-assisted diesel-electric traction engine. The traction unit uses the battery when the train is at rest and in the early stages of acceleration up to around 30 kilometres an hour (19 mph), at which point the conventional diesel engine kicks in.

Sustainable Public Transport Systems

Growing transportation problems, including gasoline prices and carbon dioxide emissions, are forcing urban governments to consider implementing better public transportation initiatives in an effort to reduce the impact of the declining oil economy on our environment and financial markets. Research and development of renewable energy sources will require increased funding commitments from municipalities already struggling to overcome their congestion and pollution problems. The United Nations hopes that these initiatives will help reduce energy costs, pollution and even urban poverty.
Hybrid Electric School Buses in New York

The State of New York is buying two hybrid electric school buses through a unique purchasing program. The buses will be powered by Enova Systems’ post-transmission 80-kilowatt hybrid drive system. Financial support for the project is being provided by a consortium of energy agencies, school districts and transportation providers throughout the United States. There are almost 50,000 school buses in the state of New York and energy groups hope to encourage more energy efficient transportation throughout the system.

Hydrogen-Powered Bus in Winnipeg

Winnipeg is showcasing its latest technology innovation, an energy-efficient hydrogen powered bus. Unfortunately this vehicle cost too much money to make it practical for use in the short-term future. The only emissions produced by the bus are water. The bus is worth between $1 and $2 million, according to Manitoba’s hydrogen specialist Bob Parsons, and is a big improvement on earlier versions of the hybrid. “It’s the only one of its kind that exists in the world at this time,” said Parsons.

CTAA’s Small Urban Network has formed and needs your help. If you represent an agency or organization that provides transit in a small-urban community, the SUN has created three committees that could use your expertise. They are: 1. Legislation/Policy; 2. Communications; and 3. Training/Education. Send an email to sampson@ctaa.org and volunteer with the SUN today.
The Case of Tennessee Vans: A Social Business Model to Develop and Finance Community Mobility Resources

By Dr. Ted Newsom

In the Summer/Fall edition of DigitalCT, we included an article focusing on Social Enterprise for Nonprofit Organizations. Designed to highlight alternative — and more localized — finance mechanisms for community and public transportation, the article encouraged Dr. Ted Newsom, director of Tennessee Vans, to share how his operation has also adopted the social enterprise model. We thought Dr. Newsom’s manuscript excellent, and include here in full — ed.

Substantial and adequate public resources to develop and finance transportation services and programs now and in the future cannot be relied on; new approaches must be pursued. The purpose of this paper is to present an approach for addressing the challenge of creating effective and financially sustainable community mobility resources. The approach is based on the experimental and evolving development of Tennessee Vans and its application of a social business enterprise model to develop and finance community mobility resources. This paper documents the transition of Tennessee Vans from a government sponsored transportation program, with primary reliance on public grants as a funding source, to a social business enterprise, with primary reliance on program generated revenue for continued operations. The social business enterprise model provides an overall framework for Tennessee Vans to achieve its social, financial, and environmental missions as it continues to grow and develop important community mobility resources for the future.

Introduction

For decades, transportation professionals have designed and developed various approaches to address the human mobility needs that occur in all communities. In addition to traditional road development approaches that support the use of highway vehicles, other approaches have been used to move people from place to place, including urban and rural public transportation systems, commuter ridesharing services, and transportation demand management programs. Yet there still remains a lack of infrastructure and services to address growing community mobility needs. Clearly, there is an ongoing need to design and develop additional mobility resources to address persistent community transportation issues and problems. Moreover, the current problem of limited financial resources for community transportation heightens the challenge of addressing mobility problems with effective and financially sustainable strategies. Substantial and adequate public resources to develop and finance transportation programs and services now and in the future cannot be relied upon; new approaches must be pursued. Some alternative funding mechanisms that have been suggested for financing transportation programs and services include increased gas taxes, public/private partnerships, toll roads, vehicle mileage pricing, and infrastructure bank loans. Whether these proposals, taken individually or together, can produce the required financial resources remains to be seen. In addition, they must also be accepted by the traveling public, taxpayers, and other stakeholders. At the present time, there is still demand for additional approaches to develop and finance community mobility resources.

The purpose of this paper is to present an approach for addressing this challenge of creating effective and financially sustainable community mobility resources. The approach is based on the experimental and evolving development of Tennessee Vans and its use of...
a viable financial business model to develop and finance community mobility resources. Tennessee Vans was initiated by the Center for Transportation Research at the University of Tennessee in February 1990 as a transportation research and service development project to meet growing mobility needs of residents in Tennessee. The program was designed as an experiment in providing community transportation resources in an innovative manner that differed from traditional transportation service models. The characteristics that distinguish Tennessee Vans from other approaches include its flexibility to meet diverse mobility needs and fill mobility gaps, an emphasis on user-based service design, performing a primary role as a mobility resource provider, and a central focus on financial self-sufficiency and program sustainability.

Tennessee Vans is a human mobility system designed to fill gaps in transportation services essential for meeting mobility demands of diverse population groups throughout Tennessee (Newsom, 1999; Wegmann and Newsom, 2002). Mobility gaps addressed by Tennessee Vans typically occur when existing community transportation services are unable to provide access to desired destinations (e.g., work sites, medical facilities, retail stores) when and where they are needed by residents. Service routes and schedules are either inconvenient or the services do not exist at all. The Tennessee Vans participants design the mobility services to meet their needs and this user-based approach assures accessibility to desired services and activities. Tennessee Vans performs a primary role as a mobility resource provider and is available to assist program participants with the implementation of their service designs by providing vehicles and associated services. In addition, a major goal of Tennessee Vans is to become financially self-sufficient and maintain the viability of program services. The financial strategy used for revenue generation and recycling of program funds facilitates program sustainability and cost effectiveness. Through its vehicle provision and financial service programs, Tennessee Vans has positively impacted the overall quality of life of individuals and groups by improving access to community services, events, and activities that enhance their participation in and contribution to societal life.

Newsom and Meyers (2011) examined and documented the historical development, the overall mission, and the operational characteristics of Tennessee Vans during the past twenty years. The study concluded that Tennessee Vans has successfully transitioned from a government grant supported research and service development project to a financially sustainable mobility service. The major challenge for Tennessee Vans now and in the future is to design and develop an operational framework that maintains program sustainability and continues to produce positive financial, social, and environmental outcomes and benefits for its customers, investors, and communities in Tennessee.

From its inception, a primary goal for Tennessee Vans is to become financially self-sufficient; that is, less dependence on government grants and more reliance on program revenue to finance future growth and operations. The evolution of the financial strategy for Tennessee Vans has been influenced by several models during the course of its history. The first model was the pay-as-you-go approach to highway development used by the Tennessee Department of Transportation (TDOT). This model basically states that highway development will occur when all of the funds are available to build the highway. As highways are built and used by motorists, more gas tax revenues are generated and available for use to build future highways. Generating and recovering gas tax revenues provides a basic foundation for financing highway development. When TDOT provided seed funds to initiate the Tennessee Vans program, it was expected that sufficient fees would be charged to participants to recover capital and operating costs and pay for future program growth.

A second model was based on the approach used by Habitat for Humanity in developing affordable housing programs (Youngs, 2007). Houses are built using donations of cash, labor and materials and assigned to participants who meet program eligibility requirements. Low-cost mortgage financing is made available to program participants to recover the costs of building the house. The funds are collected from program participants and then used to build houses to meet future
housing demand. Tennessee Vans borrows from the Habitat financing model in its approach to procuring and financing vehicles to meet the mobility demands of program participants. A vehicle is procured with available program funds and then assigned to an eligible program participant along with an affordable payment plan. The funds are collected from program participants, placed in a capital reserve fund account, and then recycled to procure additional vehicles to meet future demand.

A third model originates with the development of micro-credit programs designed to provide financing for business development to persons unable to procure loans from traditional banking sources (Yunus, 1999). These programs have been successful in helping low income persons become financially self-sufficient in starting and growing viable businesses. The market groups served by Tennessee Vans are similar to those served by micro-credit programs. Tennessee Vans participants are generally organizations and groups that have limited assets and resources to obtain credit for procuring vehicles to meet their client transportation needs. Many do not qualify for traditional vehicle financing from banks, credit unions, or dealerships. Tennessee vans assists these groups by providing no interest and no down payment vehicle financing plans if they can provide credit references indicating their ability to make payments in a timely manner and otherwise meet their financial obligations.

The model that currently influences the financial strategy for Tennessee Vans is based on the development of social businesses (Yunus, 2007, 2010). Most businesses focus primarily on maximizing profits for their investors and stockholders. Social businesses focus on achieving social goals, as well as operating according to business practices that render their enterprises financially sustainable. Many of these mission-driven businesses add environmental sustainability goals to their overall mission. As a result, many social businesses strive to balance a “triple” bottom line to achieve social, financial, and environmental goals, rather than focusing primarily on profit maximization.

Tennessee Vans can best be described as an evolving social business enterprise. The historical development and achievement of the social, financial, and environmental goals of Tennessee Vans follow the overall social business enterprise model. The social business enterprise model provides a viable and promising framework and blueprint for the future development of Tennessee Vans. The following provides an overview of the social business enterprise model, outlines the major features of Tennessee Vans as a social business enterprise, and discusses the application of this operational framework for future growth and sustainability of community mobility resources.

**Social Business Enterprise Model**

Muhammad Yunus (2010) describes a social business accordingly:

_In a social business an investor aims to help others without making any financial gain himself. The social business is a business because it must be self-sustaining – that is, it generates enough income to cover its own costs. Part of the economic surplus the social business creates is invested in expanding the business, and a part is kept in reserve to cover uncertainties. Thus, the social business might be described as a “non loss, non-dividend company,” dedicated to achieving a social goal._

Social businesses can be non-profit or for profit ventures; but regardless of corporate status, they use basic business methods and principles to accomplish a social mission. Most businesses focus primarily on maximizing profits for their investors and stockholders. Social businesses focus on achieving social goals, as well as operating according to business practices that render their enterprises financially sustainable. The term “social business” is related to other concepts, such as “social enterprise”, “social entrepreneurship”, “corporate social responsibility”, that describe the relationship of business practices and the pursuit of social goals. These businesses are sometimes referred to as “mission driven” companies and are often focused on pursuing an environmental mission, as well as achieving social goals through sustainable business practices. Regardless of the terms used, all of these enterprises are created to pursue more than
profit maximization. Their accomplishments also reflect the achievement of social and/or environmental goals and are often described as “double” or “triple” bottom line businesses. In the current environment in which government, charitable, and philanthropic resources to address social problems are limited, community organizations are pursuing social business opportunities to develop revenue streams to support their programs and services. A well-known example is Goodwill Industries, who operate retail outlets that generate revenue to support their overall mission and goals.

For the most part, urban and rural transportation programs are government subsidized, however, some transportation service programs can and do operate as social businesses. A few examples are included in a publication of the Social Enterprise Alliance (2010) and in a directory of social enterprises (Community Wealth Ventures, Inc., 2011). ITN/America provides transportation services for seniors. They focus on providing services to meet the transportation needs of seniors in an efficient and financially sustainable manner. ITN/America and its affiliates follow business practices that allow it to cover operating expenses with fees from customers and contractors so they do not have to rely on taxpayer funds for its operations. Vehicles for Change is a transportation service that provides low wage families with reliable transportation. Donated vehicles are obtained from individuals and businesses, repaired if necessary, and offered for purchase to qualified recipients identified through social service agencies. Affordable vehicle financing is made available to recipients who meet income and employment requirements. The result is that low income families now have vehicles to access employment, day care, medical appointments, and other facilities and services that they need to become self-sufficient. Freedom Wheels, a subsidiary of Vehicles for Change, was created to encourage donations and expand the number of vehicles awarded to participating families. Another example is Delancey Street Foundation, a community development organization that has created twelve social enterprise ventures to generate financial support for the organization. Two of these ventures are transportation businesses, Delancey Coach, and Paratransit Van and Bus Services. Delancey Coach operates a private corporate car service under contract with several business firms. Paratransit Van and Bus Services provides group van service for elderly and disabled residents and is supported with contracts with various agencies. These enterprises provide skills training and employment opportunities for community residents, as well as providing revenue to support these services and other activities at the Delancey Street Foundation. Similar programs have been designed to promote bicycle recycling and use. Examples include Chain Reaction, a program that trains youth to repair and recycle used bicycles for pollution-free transportation; Recycle-A-Bicycle, Inc., a program that repairs and refurbishes donated bicycles for resale and rental to community residents and tourists; and the Diepsloot CityCycle, whose earn-a-bike program trains youth to repair and maintain bicycles that they can earn and use themselves for transportation.

**Tennessee Vans – A Social Business Enterprise**

The overall mission and operational features of Tennessee Vans are characteristic of a social business enterprise. Tennessee Vans is a social business enterprise whose mission is to design and develop strategies and resources to meet the mobility needs of the transportation disadvantaged in a financially sustainable manner. Tennessee Vans works in partnership with community agencies to meet the transportation needs of their clients, including the mobility needs of persons with disabilities, seniors, youth, low and moderate income workers, persons without vehicles, and persons who cannot or choose not to drive. Tennessee Vans strives to maintain financial self-sufficiency and follows sustainable environmental practices in all of its service activities.

Tennessee Vans strives to produce positive financial, social, and environmental outcomes for its customers, investors, and communities in Tennessee. It is important that Tennessee Vans achieves and maintains financial self-sufficiency in order to continue pursuing its mission of meeting the mobility needs of the transportation disadvantaged. When these needs are met, social benefits
are generated because of people’s enhanced mobility and improved access to services, events, and activities that enable them to participate in and contribute to societal life. Environmental benefits are generated due to the nature of group transportation that reduces the number of single person automobile trips, thus lowering traffic congestion, reducing air pollution, and saving energy. All in all, the focus on achieving a balanced “triple” bottom line contributes positively to the overall quality of life for both individuals and communities.

Social Mission

Although substantial resources have been devoted to the provision of the transportation infrastructure needed to support the movement of people, there still exists what are termed “mobility gaps.” These mobility gaps occur when the transportation needs of individuals or groups are not being met by current transportation service options. The occurrence of mobility gaps is especially apparent among transportation disadvantaged groups, including persons with disabilities, youth, seniors, and low income workers. Tennessee Vans represents an approach for the development of community mobility resources to fill the mobility gaps for the transportation disadvantaged.

To achieve its social mission, Tennessee Vans focuses on the mobility needs of several market groups who provide services directly to transportation disadvantaged persons.

Tennessee Vans works in partnership with community agencies, employers, businesses, and employee groups to develop strategies and resources to meet the mobility needs of their clients. The major market segments that participate in the Tennessee Vans program are organizations and groups who provide: disabilities services, workforce services, youth services, recovery services, community outreach services, and senior services. All of these market segments have mobility needs specific to their clients and provide transportation services as a major component in the array of services that they offer. Tennessee Vans offers two programs to meet the mobility needs of its market groups: a Vehicle Purchase Program for Community Agencies and an Employee Commuter Vanpool Program.

As part of the Vehicle Purchase Program, Tennessee Vans works in partnership with community agencies to meet their client transportation needs. The community agencies can acquire affordable vehicles (15-passenger vans, minivans, and sedans) through Tennessee Vans to transport their clients on a variety of trips, including community events and activities, medical appointments, recovery treatment centers, shopping, employment and training, job interviews, school and afterschool activities, childcare, field trips, youth programs, and other community outreach services and activities that meet diverse client travel needs.

As part of the Employee Commuter Vanpool Program, Tennessee Vans serves employees who travel long distances to work locations, low and moderate income workers, workers without vehicles, and employees who cannot or choose not to drive to work. These employees are transportation disadvantaged because they have limited alternatives for their work trips. To help these employees broaden their commuting options, Tennessee Vans works in partnership with employers, businesses, community agencies and employee groups to form commuter vanpools. Commuter vanpools are groups of employees who ride together to and from work in a van and who agree to share the monthly costs of operating the vanpool. Tennessee Vans assists in the formation of commuter vanpools by providing affordable vans and essential support services.

The Tennessee Vans vehicle fleet has grown to 944 vehicles from 1990 through the 2013 model year. The vehicles were assigned to over 300 community agencies and commuter groups. Most of these vehicles have been disposed of through paid up vehicle purchase contracts and through vehicle auction sales. Currently, over 100 Tennessee Vans program participants use a fleet of 200 vehicles to provide approximately 1.2 million trips per year for more than 2500 people. They use their vehicles to provide a range of trips for those they serve. The variety of program participants and the uses of their vehicles is illustrated in Table 1.

Periodic surveys, interviews, and focus groups have been conducted to obtain quali-
and could not participate in the programs. Tennessee Vans are operated by many organizations that provide essential mobility to their clients. Closure and curtailment of services would negatively impact all program participants.

Financial Mission

The basic framework that guides the Tennessee Vans financial strategy is depicted in Figure 1. This financial strategy for maintaining the viability and longevity of the program is the defining characteristic that sets Tennessee Vans apart from other community mobility resource development programs. The initial seed grants were provided by local, state, and federal governments with the stipulation and expectation that Tennessee Vans

![Figure 1. Tennessee Vans Financial Strategy](image)

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<thead>
<tr>
<th>Market Group</th>
<th>Agency Type</th>
<th>Persons Served</th>
<th>Type of Trips</th>
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<tr>
<td>Disabilities Services</td>
<td>-Sheltered workshops</td>
<td>-Persons with developmental, intellectual, and physical disabilities</td>
<td>-Employment, Medical, Recreational, Shopping</td>
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<td>-Group homes</td>
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<td>Workforce Services</td>
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<td>-Health departments</td>
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<td>-Drug programs</td>
<td>-Homeless</td>
<td>-Shopping</td>
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<td></td>
<td></td>
<td>-Recreational</td>
</tr>
<tr>
<td>Community Outreach</td>
<td>-Social service agencies</td>
<td>-Residents of all ages and genders</td>
<td>-Educational</td>
</tr>
<tr>
<td>Services</td>
<td>-Churches</td>
<td>-Outreach target groups</td>
<td>-Cultural outings</td>
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<td></td>
<td>-Municipalities</td>
<td></td>
<td>-Recreational</td>
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<td></td>
<td>-Social services</td>
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<td></td>
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<td>-Community events</td>
</tr>
<tr>
<td>Senior Services</td>
<td>-Senior centers</td>
<td>Seniors</td>
<td>-Delivering meals</td>
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<td></td>
<td>-Assisted living facilities</td>
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<td>-Medical</td>
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<td></td>
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<td>-Recreational</td>
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<td></td>
<td></td>
<td></td>
<td>-Shopping</td>
</tr>
</tbody>
</table>

Table 1. Tennessee Vans Market Groups and Features

Participant responses indicated that many of the organizations could not maintain their existing programs without access to a Tennessee Vans vehicle. They also stated that some clients would be left without mobility...
see Vans will maximize vehicle and operating cost recovery. Tennessee Vans strives to constrain operating expenses, minimize financial losses, and maximize revenue generation. Revenues received from program participants are used to purchase replacement vehicles in the commuter vanpool program and to procure additional vehicles for the community agency purchase program. The use of these vehicles generates revenue that in turn is used to pay expenses and procure additional vehicles for future use. This recycling of revenue contributes to the growth of the program and its longevity into the future. The amount of public funds invested in Tennessee Vans since 1990 totals approximately $8.5 million and the program revenue generated since then totals approximately $20 million.

From its inception, a major goal for Tennessee Vans is to become financially self-sufficient; that is, less dependence on government grants and more reliance on program revenue to finance future growth and operations. Table 2 presents a financial sustainability timeline for Tennessee Vans. A major milestone was reached in model year 2006, when the final balance of government grant funds was used to procure vehicles. Since model year 2007, only program revenue has been used to procure vehicles and finance program operations. As a result, the primary investor for now and the major one for the future is the customer base served by the Tennessee Vans program.

Table 3 presents a general business profile for Tennessee Vans. Current operating expenses, including personnel salaries/benefits and direct costs, are $500,000 - $600,000 per year. Current program revenue, including participant fees and vehicle auction sales receipts, totals $800,000 - $1,000,000 per year. Revenue minus expenses yields a sur-

Table 2. Financial Sustainability Timeline for Tennessee Vans

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>Program established</td>
</tr>
<tr>
<td>1990 – 1994</td>
<td>Vehicles procured with government seed funds; program revenue not sufficient to meet vehicle demand</td>
</tr>
<tr>
<td>1995 – 1999</td>
<td>Both grant funds and program revenue used to procure vehicles; program maturing and producing substantial revenue</td>
</tr>
<tr>
<td>2000 – 2004</td>
<td>Primary objective is to expend remaining grant funds for the purchase of program vehicles</td>
</tr>
<tr>
<td>2005 – 2006</td>
<td>Final balance of grant funds expended for purchase of vehicles</td>
</tr>
<tr>
<td>2007 – 2010</td>
<td>Program vehicle purchases and operating expenses paid with program generated revenue; revenue exceeds operating expenses; vehicle procurement fund stabilizes at $3.5 – 4.0 million.</td>
</tr>
<tr>
<td>2011 - present</td>
<td>Tennessee Vans redesigned as a social business enterprise; social, financial, and environmental missions specified; business plan focus on maintenance and growth during struggling economy</td>
</tr>
</tbody>
</table>
plus of funds of $300,000 – $400,000 per year. Surplus funds are deposited and held in a capital reserve fund account for the procurement of additional vehicles to meet future vehicle demand. There is approximately $3.5 million available in the capital reserve fund for the procurement of future program vehicles.

Periodic evaluation studies indicate that attractive financial features of the program are among the primary reasons why program participants choose Tennessee Vans to procure vehicles (Wegmann and Newsom, 2002; Wegmann and Meyers, 2012). Specifically, participants cite the affordable vehicle prices and payment terms, interest free financing, and no down payment as major reasons for their participation in the Tennessee Vans program. Program participants reported that their resources to pay for vehicles include passenger fares, program revenue, daycare or tuition fees, social service grants, and donations. These organizations value the simplicity and financial flexibility provided by Tennessee Vans because many are not financially able to use conventional credit to lease or purchase a vehicle.

Environmental Mission

The government funding support for the development of Tennessee Vans stressed the achievement of environmental and energy conservation goals and Tennessee Vans has always been concerned with generating tangible benefits related to the achievement of these goals. Tennessee Vans has focused on the transportation of groups of people in order to maximize the reduction of vehicle miles traveled, since reducing vehicle miles traveled reduces traffic congestion, air pollution, and fuel usage.

Program research studies (Wegmann, 2001; Wegmann and Newsom, 2002) indicate that the average vehicle traveled about 1,102 vehicle miles per month. Approximately 4,308 persons per month were transported and about 181,667 monthly trips were made (about 2.1 million trips annually). These studies also indicated that the environmental benefits generated by Tennessee Vans include a reduction in air pollution by 44,453,000 grams/day for HC; 418,649,000 grams/day for CO; and 29,330,000 grams/day for NOX; and a reduction in fuel consumption.

Table 3. Tennessee Vans Profile

<table>
<thead>
<tr>
<th>Name:</th>
<th>Tennessee Vans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location:</td>
<td>Knoxville, TN</td>
</tr>
<tr>
<td>Business Focus:</td>
<td>Community Mobility Services</td>
</tr>
<tr>
<td>Established:</td>
<td>1990</td>
</tr>
<tr>
<td>Legal Structure:</td>
<td>Community Service of the University of Tennessee (Knoxville)</td>
</tr>
<tr>
<td>Employees:</td>
<td>5 Full-time</td>
</tr>
<tr>
<td>Annual Revenue:</td>
<td>$800,000 - $1,000,000</td>
</tr>
<tr>
<td>Annual Expenses:</td>
<td>$500,000 - $600,000</td>
</tr>
<tr>
<td>Annual Surplus:</td>
<td>$300,000 – 400,000</td>
</tr>
<tr>
<td>Capital Reserve Fund:</td>
<td>$3.5 million</td>
</tr>
</tbody>
</table>
Environmental and energy conservation benefits are also achieved by procurement of vehicles that use alternative fuels. All of the vehicles in current use by Tennessee Vans are flex-fuel vehicles that allow the use of E85 grade ethanol in addition to gasoline. Tennessee Vans has also experimented with the operations of diesel fueled vehicles which have the potential of using biodiesel as the primary fuel of choice. The use of alternative fuels will increase with the provision of appropriate vehicle technology and the expansion of the alternative fuel infrastructure to facilitate access to environmental friendly fuels.

The environmental mission of Tennessee Vans will evolve over time in conjunction with public policy regarding environmental sustainability. The issues surrounding global warming and climate control, energy independence, land use, and conservation of natural resources will encourage the development and use of appropriate vehicle technology to meet environmental goals. In addition, the overall social movement to “go green” and an emphasis on creating “livable communities” will facilitate the acceptance of newer and more expensive technology by the general population. As in the past, Tennessee Vans will adapt to these changes in the future and continue to incorporate environmental sustainability practices as part of its social business model.

Future Growth and Expansion

Future growth and expansion is a concern for all businesses, including social businesses. Social businesses desire to maximize the social, economic, and environmental benefits for those they serve. The Great Recession of 2008 has severely limited the potential for growth and expansion of existing businesses, as well as the creation of new enterprises. Tennessee Vans has been able to maintain a stable program through its interactions with program participants; consistently assessing their program status, providing financial assistance when needed, and working together to achieve our mutual goals and objectives. Since 2008, Tennessee Vans’ operations have stabilized at approximately 200 net revenue generating vehicles per year, which is sufficient to maintain program sustainability. But Tennessee Vans has available capital and human resources to grow and expand. The challenge is to create the opportunities for growth and expansion in a struggling economy. The economic environment will change slowly to facilitate future growth and expansion and the current program participants have stated a positive outlook with regard to their future use of Tennessee Vans services. In a recent survey (Wegmann and Meyers, 2012), current participants were asked about their need for vehicles during the next five years. The findings indicated that 54 percent saw an increasing need and 39 percent thought the need would be stable.

Although the outlook is positive among a stable group of current participants, overall future growth and expansion must include adding new participants to use Tennessee Vans services. Over the years, new growth for Tennessee Vans has predominantly been achieved through “word of mouth”. Based on this principle, strategies for facilitating new growth focus on stimulating the conversation about Tennessee Vans among the various market groups now served. These strategies include traditional marketing approaches, such as direct mailing to potential participants and encouraging referrals by current participants. Future approaches will build on these initiatives by incorporating guidelines for the use of social media technology (Bergman, 2012) to stimulate interest in community transportation in general and Tennessee Vans in particular.

Additional strategies that offer promise for new growth include a participant revenue sharing program and micro-franchising (Fairbourne et al., 2007). A revenue sharing program would involve direct participant involvement in recruiting new program participants through their peer networks. This strategy would provide specific peer to peer promotion of Tennessee Vans and would allow current participants to obtain additional revenue through successful referrals to support their service programs. The micro-franchising of Tennessee Vans would involve the creation of a “business in a box”, wherein Tennessee Vans services are packaged and
offered for use by entrepreneurs interested in starting their own Tennessee Vans franchise. This approach has the potential of growing the Tennessee Vans program beyond the state borders, as well as within the state of Tennessee.

Conclusions

Tennessee Vans has experienced a steady and sustainable rate of growth in funding and service development since its implementation in 1990. Financial resources provided during this time have enabled the program to procure 944 vehicles and to assign these vehicles as part of the vehicle lease and purchase programs to a diversity of participant groups. Tennessee Vans is achieving its social mission to fill the mobility gaps experienced by the transportation disadvantaged through the provision of affordable vehicles. The program is an important resource for vehicles that enables its participants to develop and implement user-based service design travel options for those persons they serve. Future growth plans include the application of program services to meet identified mobility needs of underserved populations and the exploration of ways to facilitate the identification of mobility gaps and the broadening of trip purposes addressed by past, current, and new program participants. This requires continuous review, documentation, and evaluation of lessons learned from program implementation. It also requires a commitment to maintain the role of a mobility resource provider and allow program participants to design and operate transportation services that directly meet mobility needs.

In order to assure and sustain program growth in the future, Tennessee Vans strives to preserve and maintain financial self-sufficiency. Tennessee Vans has transitioned from a government sponsored transportation program with primary reliance on public grants as a funding source to a social business enterprise with primary reliance on program generated revenue for continued operations. Effective business practices to constrain operating costs, maximize revenue collections, and minimize financial losses are implemented to render the program operationally and financially sustainable. The social business enterprise model provides an overall framework for Tennessee Vans to achieve its financial mission. It provides the social mission focus and guidance needed for proper stewardship and management of program generated funds and enables Tennessee Vans to continue to grow and develop important community mobility resources for the future.

In the pursuit of its environmental mission, Tennessee Vans builds upon its current initiatives regarding the use of alternative and appropriate vehicle technology. The incorporation of alternative “green” vehicles into the vehicle fleet is important to address future energy and environmental issues encountered by program participants. The use of alternative fuels also helps to achieve environmental goals. Alternative fuel use is now gaining broader public acceptance with the continued availability of flex-fuel, electric, and hybrid vehicles. Tennessee Vans anticipates that its current and future market groups will desire to participate in this environmental movement as it grows and as costs for new vehicle and fuel technology becomes more affordable.

As mentioned previously, public resources to develop and finance transportation programs and services now and in the future are extremely limited and cannot be relied upon. The allocation of future financial resources should consider the application of the social business enterprise model where appropriate and feasible. In contrast to continued traditional public funding of transportation through gas taxes and government grants, alternative funding mechanisms, such as public/private highway construction ventures, toll roads, vehicle mileage pricing, and infrastructure bank loans, command serious consideration. Public and private investors must now consider financial sustainability among the criteria used to allocate limited resources for community transportation. The development and financing of community mobility resources through the application of a social business enterprise model is integral to this mix of alternative funding mechanisms and deserves serious consideration as well.

In conclusion, the social business enterprise model provides a viable approach to meet the social, economic, and environmen-
Tennessee Vans

Tennessee Vans

tal objectives for future community transportation programs and services. Communities need to design and operate transportation services that meet social needs and generate substantial community benefits in a financially viable manner. As in the case of Tennessee Vans, the application of the social business enterprise model should be explored as a promising strategy for designing initiatives to develop and finance community mobility resources in the future.

References


Wegmann, F. (2001) An air quality analysis for the Knoxville van transportation program. Center for Transportation Research, University of Tennessee. Knoxville, TN.


Community transportation operations come in numerous varieties. Some operations are not-for-profit corporations, some are entities “owned” by local governments, and others are the local government itself. A few operations are for-profit businesses but they typically are under contract to the local government jurisdiction that they serve.

Irrespective of what variety of transportation operation they are, they all need capital to make their systems grow. That capital also comes in several varieties. Capital is necessary to buy vehicles, office equipment and software. Capital is necessary to buy building and land on which to locate. Capital is necessary to fund operating costs while waiting for reimbursements for services rendered. Capital is necessary to buy building and land on which to locate. Capital is necessary to fund operating costs while waiting for reimbursements for services rendered. Sometimes the need is for expansion of service and payroll, fuel and insurance costs just need to be covered immediately and paid off over a year or two.

Whatever the capital need is, the nature of the operation will determine which lenders will be interested in making the loan. Banks and the Small business Administration will want the borrower to be a for profit business. The U.S. Department of Agriculture (USDA) requires the borrowers to be in a rural location.

One of the most significant factors of a lender being able to accept an application for funding is the size of the loan that is being requested. Real estate purchases will collateralize the loan but typically can be in the $1-2 million size and be for 15 to 30 years. Vehicle loans cannot be for longer than the useful life of the vehicles, 4-7 years. Operating capital to pay bills tend to be revolving lines of credit that are drawn and repaid over and over. Sometimes the need is for expansion of service and payroll, fuel and insurance costs just need to be covered immediately and paid off over a year or two.

Some of the resources that CDTLS has available are only available to not-for-profits while others are available to for-profit businesses only. At this writing, funds are more available to for-profit businesses because CDTLS is able to make loans only with the funds it has available but is able to assist a borrower with borrowing funds from outside investors and banks if the borrower is a for-profit business. There is practically no limit to such funds.

So how is it that a not-for-profit transit provider might access the more readily available

CTAA’s Innovative Financing for Transit’s Future

By Bob Carlson

NEW HORIZONS for Community Transportation: Strategies for Changing Times

Services (CDTLS). This lender has connections with the Community Reinvestment Fund (CRF), USDA Intermediary Relending Program (IRP), Small Business Administration 7a Program, is a Community Development Finance Institution (CDFI) and recently made application to the USDA to get funds to be used as Micro-loans for Micro-enterprises.

So how is it that a not-for-profit transit provider might access the more readily available
funds that are only available to for-profit businesses? The answer to that question is related to the fact that a 501(c) 3 not-for-profit corporation is able to own and operate a for-profit business as part of their overall operations. The form of that business is what is called an LLC. An example of the function of an LLC might be to handle the payroll and accounting of the not-for-profit corporation and thereby be able to access borrowed capital for financing historically slow reimbursements from government contracts. When services grow, payroll and fuel costs must be paid on-time even when the payment for services rendered might still be a month or two away. Borrowing to cover working costs like insurance policies can all be handled via an LLC.

Another possibility is for the LLC to own the facilities that the not-for-profit transportation operations uses for vehicle parking, maintenance, offices, and even fueling islands in some cases. In this way the LLC can qualify as a small business and access SBA 7a loan guarantee that banks like to see when lending large sums for many years.

Accessing such funding begins with a thorough analysis of what you plan to do and what your existing legal structure is. Does Your Articles of Incorporation allow such ownerships and business activities? Discussion with your legal counsel is the first step. Next is to conceptualize the outcome you want to achieve. Third is to contact us at CDTLS to discuss how the process might work for you. The next step is yours.
We are now less than a year away from the end of the current federal surface transportation law — MAP-21. As reauthorization of that law begins to take shape, the Community Transportation Association of America (CTAA) has been conducting detailed listening sessions around the country with community and public transportation leaders, officials and advocates. We have always believed that the best ideas come from those on the front lines of our industry.

These vital listening sessions — which we’ve conducted in Kentucky, West Virginia, Montana, Idaho, North Dakota, South Dakota Maine, Minnesota, Vermont and New Hampshire — have organized the industry’s thoughts around three categories: 1. Must Haves; 2. Would Like to See; and 3. In a Perfect World. The response has been outstanding.

What follows is a direct listing of the output from each of these sessions. We encourage all our readers to send along your surface transportation reauthorization lists for inclusion in our policy development. Just send your ideas to bogren@ctaa.org.

### MUST HAVES
- Gas tax increase
- No reductions in transit funding
- Prompt payment from FTA
- Next reauthorization needs to be 3 to 5 years, minimum
- Enough capital to do basic bus replacement
- Streamlined bus procurements
- An understanding of the connection between capital investment and meeting growing demand
- Lapping funds shouldn’t go back to the FTA
- Safety regulations should be based on performance, and scalable

### WOULD LIKE TO SEE
- The capital priority should be placed on maintaining current services over launching new ones
- Performance measures must be community-based and realistic
- Consistent source of investment for vehicles and equipment
- Longer-term bills (at least 5 years)
- Scalability
- Investment tied to mandates (no additional work without additional funds)
- More money overall
- State transit investment in all 50 states
- Requisite funding to replace again bus fleets
- No investment cuts

### IN A PERFECT WORLD
- More money overall
- State transit investment in all 50 states
- Requisite funding to replace again bus fleets
- No investment cuts
A stable source of funding for transit, besides the gas tax
At least a six year bill
Flexible and scaleable match requirements
A 5-cent increase in the gas tax
The ability to use farebox revenues as local operating investment
Better reimbursement for health care trips
Better understanding of relationship between transit and good healthcare outcomes, lower readmissions, etc.
Faster Medicaid payment processing
Any additional regs must include a subtracted regulation
Regulations must be scaleable to meet all communities
No new requirements without investment to cover it
Real private-sector investment in transit
Performance measures must be scaleable, include transit leadership/management involvement, include client type and take into account distances, be realistic and be more incentive based than punitive
Connection between safety and bus capital must be made
Safety regs must be grounded in common sense
Need enough investment to keep all current services operational
No restrictions of flexible funding from

FHWA

- Fleets would be maintained on a schedule and the connection of bus capital to safety would be clear
- Enough investment to pay our drivers adequately
- Steady, guaranteed flow of federal investment
- Funding levels would factor in externalities like outcomes of trips and how transit is an ancillary benefit to many programs
- Flexible technology investments that are appropriate to each system/community
- Elected officials need to better understand the connective nature of transit
- Sustaining current funding levels
- Keep the land mass adjusters in 5311 program (distances are important)
- Make sure operating investment is there for tribal transit start-ups
- Procurements made more simple and streamlined
- The funds to replace aging and unsafe vehicles
- Operating $$ continued in CMAQ
- Each system is unique and all regs need to take this into account
- Gas tax increase
- Increased transit funding
- 3-5 year minimum
- Universal reporting requirements for state and federal
- Human service transportation investment in one source – streamline across agencies, not just DOT
- Buy America would be vastly simplified
- Investment for bike/ped infrastructure
- Enough capital funds to do basic bus replacement
- Diversified funding source for trust fund beyond gas tax
- A return to earmarks that are transparent to taxpayer
- Need to articulate one set of core values for rural mobility (NOTE: this was the most important priority for the folks in the room)
- A reasonable bus/facilities replacement program (“don’t throw the bus under the bus”)
- Increased authorizations for rural transit
- Investment for things other than capital (mobility mgmt, volunteer transportation, beginning rural taxi services, etc)
- Investment to correspond with safety/security regs
- Maintain what we have first before expanding
- A shared vision for rural transit
- Revisit models to evaluate rural transportation
- More flexibility (in funding, service models,
partnerships)

• A vision for getting veterans to regional medical centers

• Diversified funding sources into the trust fund beyond just the gas tax

• A return to earmarks in the transit program that are transparent to tax payers

• Performance measures that act as incentives and not punishments

• Asset management regs that take into account local demand and service growth

• Coordination plans that have real meaning

• Fully allocated transit costs as part of the coordination process

• Common sense applied to the charter bus regulations

• Electronic tools for reporting process

• Pilot projects

• Uniform procurement (with options/flexibility)

• Investment for bike/pedestrian infrastructure

• Accessability investment

• Higher federal match

• Increase in local match flexibility

• Farebox as local match

• Target priorities with corresponding match levels (ie. good repair, reporting)

• 50 percent increase in transit investment

• A 10-year bill

• Little pockets of $$ in all other programs moved into the transit program

• Understanding that coordination won’t change the world

• Diversified investment in surface transportation, taking more than gas tax into account

• Special funding opportunities to meet rapidly growing areas (North Dakota)

• Adequate federal and state/local funding to meet current and future demand

• A clear mandate to coordinate in a functional manner with all programs fully participating

• Increased funding to meet growing demand

• Use of farebox for match

• More flexibility across the transit program

• Safety regulations should be scalable and based on performance

• Streamlined bus procurement

• Transportation bill greater than 5 years in length

• Increase flexibility for local match (ie. fare box)

• “Lifeline” Service (transit networks as a service lifeline, also transit as part of the continuum of care, not just for health care)

• If leaders knew the costs of running service beyond just the costs of vehicles & drivers (understood the value of mobility mgmt, dispatching, maintenance, etc)

• Build momentum for larger transit investment by leveraging bipartisan support for helping veterans’ mobility

• Throw all the money in one pile and let locals determine where it goes

• Data on human services transportation in same database as NTD (account for all transportation programs everywhere)

• FTA would embrace innovation and incentivize it

• Streamline requirements in regs, reporting (don’t make us send in the same form 6 times)

• Reduce the regulatory burden

• Next reauthorization would be for 10 years

• Buy America would be vastly simplified

• The overarching theory on transit reauthorization would be simplicity

• All federal funds targeting the movement of people would have to go through the local transit system

• Scalable options for alt. fuels (ie. start up $$ for CNG infrastructure)

• Turn fleet over in prescribed intervals (life of the vehicle)

• Put transit people on brokerage committees
• Need flexibility for longer-distance trips to co-schedule multiple trips to same destination (required to provide service on any day requested; bad efficiency)
• Put human service transportation investment in one source (streamline across agencies, not just within DOT)
• Identify funding source for Medicaid transportation
• Don’t cater as much to client choice (must be limits to what’s possible)
• Open source for data software
• Too much redundancy in reporting requirements (use universal forms)
• Co-locate community services (day programs increase # of trips)
• Increase communication with the health care industry (transit schedules medical appointments)
• Medicaid trips for prescriptions, not just appointments
• Stop locating health care facilities outside transit coverage areas (force zoning requirements to be followed) or provide new investment for service increase
• 5309 recipients as designated recipients
• Get rid of all silos and make transit agencies the single source for all transportation $$
• Index the gas tax so it fluctuates with economy
• Dedicated, sustainable, diversified investment source for transit
• True flexibility in all forms of transit funding that cuts across programs
• CMS would understand transit isn’t like the medical model and act accordingly
• We’d adopt the European model
• At least $4 million/year in bus capital funding for Montana
• A redefinition of regional and intercity needs
• Accessibility investment
• Performance measures must be realistic and community based

• “We still would have a vibrant system no matter what”
• Infrastructure supporters on the same page as transit supporters
• Transit would be higher on the priorities list at all levels of govt.
• Remove funding silos
• Cooperation -> Coordination
• Regional medical centers would consult transit during planning

CT
CTAA Analysis

Fta transit safety anprm analysis

By Scott Bogren

What follows is CTAA’s analysis of the Federal Transit Administration’s (FTA) Transit Safety Advanced Notice of Proposed Rulemaking. Please take note of the word, “Advanced,” in that title, because it offers community and public transportation leaders, officials and advocates an extraordinary amount of time to provide input and solutions to the FTA on its safety initiative.

Make no mistake, safety is a sea-change for the FTA and represents a significant undertaking at a time of constrained investment in the agency. The ANPRM is an opportunity to provide solutions and practical thinking for the transit field. Throughout the document, FTA is asking rural and small-urban transit operators to help them make sure the safety regulatory process doesn’t become too burdensome and costly. Please take them up on this offer. Complaining about the FTA has become part and parcel of the transit field in recent years, but in this case, we have an opportunity before the community and public transit industry to ensure a flexible, scalable approach to the overall safety of our operations and passengers — something the vast majority of transit operators already take very seriously.

CTAA is here to help and has already developed training and financial tools to help community and public transit systems of all sizes serving all types of communities. Our Certified Safety and Security Officer training and Community Transportation Safety and Security Accreditation programs were developed with, first and foremost, system safety in mind and secondarily, the looming safety regulations. We can help you provide the safest transportation possible in your community.

Another key component to safety is insurance. CTAA has recently entered into an agreement with Newtek Business Services. Offering the full slate of insurance options, the Newtek insurance partnership represents a vital new opportunity for all Association members to get the best coverage possible, at the lowest rates. Newtek promises quick response to all CTAA insurance inquiries.

The FTA’s Safety Advanced Notice of Proposed Rulemaking (ANPRM) was issued Oct. 3, 2013, with comments due back to FTA by Jan. 2, 2014. What follows is a quick analysis of the document, highlighting key passages and intended to provide a synopsis. The full ANPRM is available here:

Summary

FTA “intends to focus its initial oversight and enforcement efforts on rail systems’ implementation of and compliance with these requirements.” FTA will be seeking public comment on its initial interpretations, proposals it is considering and in the form of questions the agency poses throughout the ANPRM document. Overall, FTA has organized the document into sections covering: (1) the requirements of the National Safety Program relating to the National Public Transportation Safety Plan, the Public Transportation Agency Safety Plan, and the Public Transportation Safety Certification Training Program; (2) the requirements of the National Transit Asset Management (TAM)
System, including four proposed options under consideration for defining and measuring state of good repair; and (3) the relationship between safety, transit asset management and state of good repair.

The Safety Management System (SMS) Approach There are four essential pillars of an SMS approach — (1) safety policy; (2) safety risk management; (3) safety assurance; and (4) safety promotion. Within the context of the Transit Agency Safety Plan, an organization's safety objectives will be articulated, at a minimum, through the setting of performance targets based on the safety performance criteria established in the National Safety Plan and state of good repair based on the definition of that term established under the National TAM System.

The Transit Agency Safety Plan must also include methods for identifying and evaluating safety risks throughout all elements of the public transportation system and strategies to minimize the exposure of the public, personnel, and property to hazards and unsafe conditions.

Safety assurance requires an organization to monitor the effectiveness of safety risk controls established under safety risk management. Safety assurance is also designed to ensure that the organization meets or exceeds its safety objectives through the collection, analysis and assessment of data.

Safety promotion involves training, awareness and communication that support safety.

The National Public Transportation Safety Program

The National Safety Program is comprised of four subsections: (1) the National Public Transportation Safety Plan; (2) the Public Transportation Agency Plan; (3) the Public Transportation Safety Certification Training Program; and (4) the State Safety Oversight Program.

The National Safety Plan

The National Safety Plan will, at a minimum, include safety performance criteria for all modes of public transportation; the definition of state of good repair developed through the implementation of the National TAM System; a public transportation safety certification training program; and minimum safety performance standards for transit vehicles used in revenue service.

Within one year after FTA issues a final rule, each recipient of 5307 and 5311 (including states) must develop, implement and certify a Public Transit Agency Safety Plan. Small transit providers that are recipients under 5307 or 5311 may have their plans drafted by the state. Each plan must include:

- A requirement that the board of directors or equivalent entity approve the plan and any updates;
- Methods for identifying and evaluating safety risks throughout all elements of the recipient’s public transportation system;
- Strategies to minimize the exposure of the public, personnel and property to hazards and unsafe conditions;
- A process and timeline for conducting an annual review and update of the plan;
- Assignment of an adequately trained safety officer who reports directly to the general manager, president or equivalent officer of the recipient; and
- A comprehensive staff training program for operations personnel and personnel directly responsible for safety.

The Public Transportation Safety Certification Training Program

FTA envisions that the Public Transportation Safety Certification Training Program will establish minimum expertise requirements for Federal, State, transit agency and other designated personnel who are directly responsible for safety oversight.

FTA is developing proposed interim provisions for safety certification and training, which will “soon” be published in the Federal Register. These interim provisions will remain in effect until FTA issues a final rule for the Safety Certification Training Program. FTA is organizing its training approach around a series of competencies and basic skills that Federal, State and transit employees and contractors charged with overseeing transit safety need in order to perform their
oversight duties. Recipients of 5307 and 5311 funds may use up to 0.5 percent of apportioned formula funds to pay for up to 80 percent of the costs of an applicable transit agency employee’s participation in the Safety Certification Training Program.

**Safety Performance Criteria**

FTA is required to set safety performance criteria for all modes of public transportation, which it envisions will consist of desired outcomes, established controls to mitigate risks and indicators for identifying and tracking safety related issues. Eventually, FTA envisions that transit agencies will be able to use safety information to progress from reactive safety risk management response to a proactive or predictive response. FTA in considering proposing data collection processes and analyses that will allow FTA to collect and roll up results to the national level. Transit agencies would then set targets based on these measures.

**State of Good Repair**

The definition of state of good repair will be established through the rulemaking to establish the National TAM System. The definition must include objective standards measuring the condition of capital assets of recipients, including equipment, rolling stock, infrastructure and facilities. FTA has established four potential approaches that could be used to define and measure state of good repair, which are as follows:

- **Asset Age:** The approach relies on the assumption that most assets provide reliable service for a predictable period of time after which they should be replaced. It establishes a maximum useful life for many assets, beyond which an asset is considered to be part of the state of good repair backlog. This is not to be confused with the minimum useful life with which many FTA recipients are familiar.

- **Asset Condition:** This approach is based on periodic conditions assessment of all assets using a set of standardized procedures and criteria and would require FTA to develop significant guidance on how and when to assess the conditions of different classes of assets, including parameters for sampling, if necessary.

- **Asset Performance:** The approach is based on a regular, comprehensive assessment of a system’s performance and relies upon the assumption that as assets age, they will become less durable and reliable, resulting in decreased operational performance. A performance-based approach would require far tighter integration of operations and capital maintenance than currently exist at most transit systems.

- **Comprehensive Assessment of Assets:** This approach combines the previous approaches to look at the age, condition and performance of a system’s assets, as well as to incorporate information on maintenance history for each asset. Its primary benefit is it takes into account all the factors that contribute to state of good repair, but it is clearly the most complex and most labor-intensive approach.

**Minimum Safety Performance Standards for Vehicles**

FTA is required to issue minimum safety performance standards for public transportation vehicles used in revenue operation. Those standards, to the extent practicable, must take into consideration: (1) relevant recommendations of the National Transportation Safety Board; and (2) recommendations of, and best practices developed by the public transportation industry. Presently, FTA's priority with respect to vehicles is issuing a proposed rule to establish a bus testing pass/fail standard.

**The Public Transportation Agency Safety Plan**

Each recipient of Section 5307 and Section 5311 must certify that it has established a comprehensive Transit Agency Safety Plan. States may also draft and certify plans for rural areas or small public transportation providers in urban areas. The Transit Agency Safety Plan is where FTA envisions each transit agency to illustrate its practice of SMS, particularly as it relates to the following four questions:

- What will likely be the cause of the transit agency’s next accident?
• How does the transit agency know the likely cause of the next accident?
• What is the transit agency doing to mitigate the risk?
• Is the strategy or action working?

Public Transportation Agency Safety Plan requirements include:
• A requirement that the board of directors or equivalent entity approve the plan;
• Methods for identifying and evaluating safety risks throughout all elements of the system;
• Strategies to minimize the exposure of the public, personnel and property;
• A process and timeline for conducting an annual review and update of the plan;
• Performance targets based on the safety performance criteria and state of good repair standards;
• Assignment of an adequate trained safety officer who reports directly to system leadership; and
• A comprehensive staff training program for the operations personnel and personnel directly responsible for safety.

Transit Asset Management

FTA must establish a National TAM System that includes the following five elements: (1) FTA is define the term, state of good repair, including objective standards for measuring asset conditions; (2) FTA must establish performance measures based on these state of good repair standards, and each FTA grant recipient must annually set targets based on these measures; (3) each FTA recipient and subrecipient must develop an asset management plan that includes asset inventory and investment prioritization; (4) asset inventories, condition assessments and performance targets must be reported to FTA; and (5) FTA must provide technical assistance to recipients.

FTA notes about the relationship between Safety, the Safety Management System Approach, Transit Asset Management and State of Good Repair the following:

“Even when assets are not in a state of good repair, they can be operated safely.”

“FTA believes that there is a nexus between achieving a state of good repair and the safety of a transit system.”

All recipients and subrecipients of FTA grants must develop a TAM plan. Each recipient is further required to set state of good repair performance targets. Finally, recipients of the Section 5307 or 5311 formula programs must also report asset condition data to the NTD. FTA interprets the language of the statute to specifically exclude a statewide TAM plan. Subrecipients will not be required to set state of good repair performance targets directly, the recipient will set a performance target on their behalf. FTA intends to define state of good repair and to set the state of good repair performance measures in a way that will allow for and provide a simple approach for small recipients and for grant recipients setting state of good repair targets on behalf of small subrecipients. FTA intends for the TAM Plan required of small operators to be relatively simple and based on the life-cycle of the revenue vehicles and facilities in the operator’s asset inventory. FTA recognizes that meeting the new requirements for transit asset management will not be easy and may require additional resources and expertise. In many cases, funds from FTA’s core formula grant programs may be used to cover costs related to implementing the TAM requirements.

The TAM Plan must include, at a minimum, capital asset inventories and condition assessments, decision support tools, and investment prioritization. The foundation of any effective TAM Plan is a good capital asset inventory. FTA is preparing a separate Federal Register notice on collecting asset inventory information through the NTD.

Each TAM Plan must include investment prioritization. All projects identified in the TAM Plan should reflect priorities for funding from all available sources, including FTA program funds, State and local funds, and funds transferred from FHWA. Three months after a final rule is issued to establish state of good repair performance mea-
sures, each FTA grant recipient is required to establish annual state of good repair performance targets in relation to those measures. Further, each year, FTA grant recipients are required to report to FTA on progress toward meeting those state of good repair targets, and to report the targets established for the subsequent fiscal year. Note: only recipients and not subrecipients will be required to set state of good repair performance targets.

FTA envisions adopting performance measures that provide a direct measure of each transit agency’s state of good repair backlog. FTA believes that the state of good repair performance measures should be transparent, readily understood by the public, and sustainable over the long-term as possible. They should be quantitative, and the not be constructed in reference to an arbitrary baseline.

FTA grant recipients will be required to establish state of good repair performance targets in relation to state of good repair performance measures within three months after FTA establishes the performance measures. Recipients of FTA funding will be required to submit an annual report describing the progress of the recipient toward meeting the recipient’s state of good repair performance targets for the subsequent year.

Certification of Transit Agency Safety Plans and Transit Asset Management Plans

Both the Transit Agency Safety Plan and the TAM Plan have a self-certification requirement. First, certification provides assurance to FTA that recipients have conscientiously sought to meet the requirements for the Transit Agency Safety Plan and the TAM Plan and that the resulting plans are supporting the goals for safety and transit asset management. Second, a recipient that engages in a rigorous review of the Transit Agency Safety Plan and TAM Plan before certifying it to FTA will have confidence that their plans meet the standards established by FTA.

CTAA Analysis

The Competitive Edge: Making Community and Public Transit the Best Alternative for Medical Transportation

Today there is never-before-seen complexity in the non-emergency medical transportation field. Limited funding combined with growing patient loads has states seeking intermediaries that can control costs through competition. Community and public transportation providers must become efficient, safe, cost-effective and accountable to maintain these important medical transportation services. The Community Transportation Association, in response to requests from its members, is introducing a new initiative this fall —the Competitive Edge — which will give community and public transit providers the tools, resources and benefits they need to make them central players in this new medical transportation environment. Here’s what the Competitive Edge encompasses:

1. The Competitive Edge Training
CTAA has developed an all-new training course that combines and emphasizes the following topics:
- Value: Determining the true cost of service
- Pricing: Lowering your costs to be competitive
- Negotiation: Winning through persuasion
- Accountability: Building a recordkeeping and reporting process
- Training: Focusing on the patient

Access to the Transit Industry’s Best Resources and Training
You don’t need to have all the answers, you need to have access to them when you need them. Here’s how the Competitive Edge helps:
- Peers and Information Sharing: CTAA will put you in contact with your industry peers, where you can learn from experience
- OnLine Library and Resource Holdings: The most timely resources, news and research, all housed on CTAA’s medical transportation website
- CTAA staff: Our professional staff are always available to offer analysis and insight
- Important training and certification programs such as the Certified Safety and Security Manager, PASS Driver Certification, and the soon-to-be released Medi-PASS Driver Certification.

Valuable CTAA Member Benefits
As part of the Competitive Edge initiative, the Association has developed a cohesive set of benefits to ensure your operation is efficient and cost-effective:
- The Insurance Store: Through an exclusive agreement with Arthur J. Gallagher Insurance, members can access the best coverage at the lowest price
- Energy Program: CTAA members pay less for fuel and energy with our FleetCards program and other energy management initiatives

Please go to www.ctaa.org/competitiveedge to learn how you can bring the Competitive Edge to your state. As always, CTAA training staff are available to help tailor this new program to your precise needs. Please call Charles Dickson at 202-247-8356 or email dickson@ctaa.org for all the details on this unique opportunity!
The CT Interview: Newtek & the CTAA Insurance Store

CTAA members — through the Insurance Store — can now take advantage of an important new insurance and safety partnership with Newtek Business Services. Offering the full slate of insurance options, the Newtek insurance partnership represents a vital new opportunity for all Association members to get the best coverage possible, at the lowest rates. Newtek promises quick response to all CTAA insurance inquiries and in coming editions of Fast Mail will offer assistance with better understanding the Affordable Care Act and other key community and public transportation insurance issues and concerns. In this age of constrained budgets, don't miss out on the savings Newtek and the CTAA Insurance Store might be able to bring to your organization. - See more here.

DigitalCT: What new services and opportunities does Newtek bring to the CTAA Insurance Store?

Newtek: Newtek provides more than insurance. We offer loans, electronic payment processing, payroll services and managed technology, all of which CTAA members will have access to over time. In some instances it may be beneficial to package several products, for instance Payroll, Worker Compensation and Employee Benefits are a natural combination. The insurance team and the lending team also work together daily to make sure the appropriate insurance is in place at loan closing. CTAA members benefit directly from this coordination. We manage the entire process saving you administrative time and energy.

DigitalCT: How have CTAA and Newtek simplified the process of finding the right insurance for community and public transit?

Newtek: We have created a very simple process where a member can request information or a quote online through the CTAA website or by calling Newtek directly and identifying themselves as a CTAA member. Since Newtek Insurance is licensed in 50 States, represents numerous insurance carriers and program managers and handles property and casualty as well as employee benefits, we can assist the members with all their questions and needs. If your make your request online, one of our licensed agents will call you back at the requested time, but no later than 24 hours.

DigitalCT: What specific types of insurance, beyond property/casualty, does Newtek offer CTAA members?

Newtek: Newtek Insurance can handle Property and Casualty, Directors and Officers (Non Profit and For Profit), Professional Liability, Special Events, Pollution/Environmental, Personal Auto and Home and Health Insurance for individuals and businesses. With the implementation of the Affordable Care Act (Obamacare) we have a team of benefit specialists that can guide CTAA members and their employees ensure they are compliant with the rules.

DigitalCT: Give us some background and history on Newtek

Newtek: Newtek was established in 1998. Today we service over 100,000 business accounts across more than 150 industries in all 50 States. We directly provide vital professional business services that independent business owners need to successfully compete, grow and thrive in today's difficult business climate. Through our highly skilled staff of trained professionals, we are able to help businesses grow their sales, improve their technological efficiencies, mitigate financial exposure and reduce their overall cost of doing business.
Newtek: Commercial insurance rates have continued to climb for 10 consecutive quarters and that is likely to continue into 2014.

Workers’ compensation and employment-practices liability/management liability had the largest year-over-year rate increases, with both rising by double digits. For most commercial lines, increases were reported to be in the mid-to upper-single digits, including automobile. Even though this has been a quiet hurricane season, property insurance may be hard to find or expensive along the coast or in the Northeast.

Carriers give their best rates to established, well run organizations that have a good track record including a history of low losses, good hiring practices, established training programs/certifications and have established a formal safety/accident investigation program.

As the Affordable Care Act is implemented, both individual and businesses can expect to see the costs increase for the foreseeable future. The cost will be driven by the requirement for all plans to provide the defined essential benefits which in many cases adds coverage and then the various taxes that are embedded in the law.

DigitalCT: Tell us, generally, about the current insurance market environment. What can CTAA members expect in the coming months?

Newtek: We deliver a unique advantage to our customers – we provide them the ability to access many business services under one roof. Our customers don’t have to do the legwork of calling many different companies only to get the runaround. They simply have to call us to get important business questions answered and critical issues addressed. Our high-quality, state-of-the-art products and services integrate seamlessly to effectively grow your sales, save you money, and minimize your risks.
Transit Notes

Utah State University’s Innovative Electric Bus

For nearly a year, Utah State University has been operating a first-of-its-kind electric bus that employs inductive charging technology to recharge the vehicle’s batteries while it waits at a bus stop. The technology, in layman’s terms, allows for the transfer of energy between two objects. No lengthy charging stations, no catenary wires, just a vehicle pausing over an inductive charging plate.

According to Utah State University, the new technology achieved three basic performance metrics: 1. a power level up to 25 kilowatts; 2. greater than 90 percent efficiency between the power grid and the battery; and 3. a maximum misalignment of up to six inches. WAVE, Inc., — a Utah State University spin-off company — worked in cooperation with the Utah Science Technology and Research Initiative’s Advanced Transportation Institute and hopes to launch its first commercial demonstration of the new bus technology later this year.

“Current battery limitations prevent an all-electric transit bus from operating all day from an overnight charge,” says Wesley Smith, CEO of WAVE. “[This vehicle] solves that problem by charging the bus wirelessly during its daily operations when the bus stops to load and off-load passengers.”

Mid Mon Valley Transit Authority (Pa.) Adds Buses, Perks for Customers

“The new 35-foot vehicles are a sign of the future of transit service. The buses might be the model for other buses purchased as the Mid Mon Valley Transit Authority eventually replaces its fleet, Executive Director Marc Roncone said. The authority is striving to use technology to make transit service more user-friendly, Roncone said. An Automated Voice Announcement System is one such feature on the new buses. When close to a stop, a GPS system will announce the next bus stop to passengers. The feature brings the buses more in line with federal Americans with Disabilities Act regulations by taking the function out of drivers’ hands.

“We got these six to see if we want to go to these more in the future,” Roncone said. The authority last added to its fleet in 2009. The authority is already looking to the future for its next bus purchase, Roncone acknowledged. “Our next buses might not be diesel, but compressed natural gas (fueled). Our goal’s to fuel our vehicles with fuel drilled right here in southwestern Pennsylvania.

Source: Pittsburgh Tribune

U.S. Department of Transportation Awards $63 Million in University Transportation Center Grants

“The U.S. Department of Transportation’s Research and Innovative Technology Administration (RITA) recently announced approximately $63 million in grants to 33 University Transportation Centers (UTCs) to advance research and education programs that address critical transportation challenges facing our nation. The UTCs conduct research that directly supports the priorities of the U.S. Department of Transportation (DOT) to promote the safe, efficient and environmentally sound movement of good and people. Authorized by Congress under the Moving Ahead for Progress in the 21st Century Act (MAP-21), the UTC Program provides ap-
approximately $72.5 million for each of fiscal years 2013 and 2014 for up to 35 competitive grants. UTCs may be a single institution or a consortium of two or more non-profit institutions of higher education led by one lead institution.

“University transportation centers are key to helping us address today’s transportation needs, from environmental sustainability to safety,” said U.S. Transportation Secretary Anthony Foxx. “The participating universities are a critical part of our national transportation strategy and to developing a professional workforce with the expertise and knowledge to tackle the challenges of the future.”

Source: USDOT

Las Cruces (N.M.) Intermodal Transit Center Readies to Open

“Oh, so close, but still so seemingly far away. That’s the sentiment some Las Crucens who regularly use public transportation have about the city’s intermodal transit center. The $36 million facility is almost ready to be opened to the public. The Las Cruces fire department conducted a final inspection of the building, and City Manager Robert Garza said a certificate of occupancy will soon be issued. The first floor of the two-story intermodal center will be focused on the public and the customers who will use it. A customer service counter will open into the intermodal’s lobby. There will be benches in the lobby -- which has floor-to-ceiling windows on two sides of the primary waiting area.

“Frankly, I can’t wait for it,” Las Crucen Travis Carter said. “As it is, we have to wait outside (the Amador Hotel, the central transfer point for RoadRunner Transit and New Mexico Park and Ride) for buses. It’s not bad when the weather is good. But it’s starting to get darker earlier and the benches out here really aren’t very big, or very comfortable.”

Source: Las Cruces Sun-News

Bergen Community College (N.J.) Students Gain Shuttle Between Lyndhurst, Paramus Campuses

“Bergen Community College students who split time between the Lyndhurst and Paramus campus will have a new way to get to their classes: a federally-funded and county-run shuttle bus service. After a ribbon-cutting ceremony at the college’s Meadowlands campus in Lyndhurst, the two shuttle buses began making stops every half-hour for the approximately 12-mile trip.

“The grant will provide $211,612 each year, enough to pay for the two buses and part of the salaries of the two drivers,” said Bergen County spokesman Rocco Mazza. “The purpose of the grant is to take cars off the road and because of the Route 17 corridor being so congested, this worked perfectly,” he said.

Source: North Jersey Record
RSVP (Nevada) Expands Its Transportation Program to More People With Disabilities

“RSVP has received additional funding to expand transportation services to include younger persons with a disability. Volunteers are able to provide transportation services throughout Carson City and Nevada’s rural communities as well as the ability to drive them to areas which offer the services they desperately need. Nevada’s rural senior and disabled population are provided with escorted transportation service to the doctor, to pick up prescriptions, grocery shopping and for socialization which is so important to the confined elderly and those who are disabled.

“We are able to help even more people now and can provide persons with disabilities aged 18 and older with free escorted transportation services provided by volunteers.” said Susan Haas, Executive Director and CEO of RSVP.

Source: Nevada Appeal

ABOUT US

Community Transportation Magazine is the voice of the Community Transportation Association, a national association dedicated to making mobility alternatives available to all Americans. The Association’s Board of Directors provides national leadership and direction for the Association. The Board relies on the special expertise of its State and Tribal Delegate Council to assist in their important efforts.

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