Green Coalition Brief

Air to Rail Shuttle

Transportation

October 2005

Writtem Brief

An Integrated Mass Transit Plan is key to protecting our home, our earth, our city, our environment, because it leaves a smaller footprint than asphalt and concrete of our highway system.

We have a car culture that imprints and affects everything we do from peace to war. A culture that expects an infinite flow of oil and low gasoline prices.

The ground transportation improvements to be made near the Montreal-Trudeau Airport must be environmentally friendly and not a "spaghetti network" that encourages more car travel and the further destruction of ecologically sensitive zones including the airport's neighbouring streams.

Currently, pedestrians, bicyclists and mass transit users are at a great disadvantage: There is no safe direct sidewalk or bikeway from the Dorval train stations, the Dorval Circle and the airport; Indeed, the bus lines running to and fro the airport terminal do not make for convenient transit. In general, buses only appeal to students, the elderly and those who don't own cars. Neither the STM's, (Montreal Transport Corp.), number 204 bus line nor the downtown air bus shuttle capture the motoring public's imagination.

A rail shuttle to the airport is a great idea because conventional trains are relatively cheap to operate and are energy efficient. Rail's reliability factor is an important draw to ridership. Urban rail is seen as a permanent fixture that improves the quality of life. They also offer more room for baggage.

AIRPORT RAIL SHUTTLE:

The Green Coalition applauds the fact that the Downtown to P. E. Trudeau Airport shuttle will not use the more expensive and longer northern route, thus maintaining the Doney Spur for future local light rail use. (Please see attached articles: 1. "City considers dormant rail line", by Andy Blatchford, The Chronicle, West Island Edition,

Aug. 24, 2005; 2. "W.I. on transit: Don't forget us", by Ian Howarth, The Suburban, Aug. 24, 2005; 3. "West Island transit alley is a great idea", Henry Aubin, The Gazette, Montreal, Sept. 29, 2005.).
However, we need a true intermodal, (integrated), terminal at Montreal-Trudeau Airport which compliments the Rigaud commuter train line and doesn't weaken it. There are some glaring ommissions in the current proposal:

1) The Dorval commuter rail and bus terminal are not being integrated with the airport facility. The AMT and ADM must reconsider and create a true intermodal terminal.

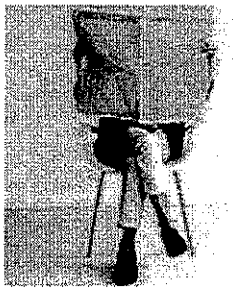
2) The Rigaud commuter line will not stop at the airport. This will inconvenience Western Montreal as well as West Islanders who may want to take this service to the airport. Although a new switch will connect the CP line to the projected service, it is not expected to be used regularly in the near term. The CPR route is more direct. The southern CN line is longer and it crosses the Lachine Canal twice.

3) To be successful, the rail service must be competitive with the automobile. The shortest route is the most logical. If the airport shuttle were to use CPR's Westmount Subdivision, it would be able to stop at Vendome station -- an intermediate catchment station. The most successful train-to-plane services have suburban stops! People in the greater West End, (NDG, CDN, Cote St. Luc, etc...), and western downtown and Westmount will not head east to go west! Indeed, with the advent of the new McGill Hospital and many out-of-town visitors going to the new Shriner's Hospital, transit service between Vendome Metro/train station and the airport terminal becomes even more vital. One fully understands that VIA Rail's trains will stop at Central Station as it is its terminal. But, the local RDC, (selfpropelled rail diesel car), service should compliment the Rigaud line -- not undermine it!

4) The local train shuttle should be integrated in the AMT/STM system,

If rum on the Canadian Pacific track, it would improve the frequency and service of the Rigaud line. (Please see enclosed letter to the editor regarding improved, increased and integrated commuter rail and light rail service in the Montreal area and related article: "A rational way of extending commuter train lines", by Henry Aubin, The Gazett Montreal, Tuesday, Sept. 27, 2005.).

5) Environmentally friendly alternative fuels should be considered for the rail shuttle as well as for the VIA Rail locomotives. Ex: Battery/diesel hybrid Zero emission fuel cell/flywheel electric technology could also be considered. (See, "Rail ultra-lite! A powerful case for self-powered trams", by Christian Wolmar, Rail-magazine.com, #521, p.31.). Also, engines/locomotives should not idle thereby creating less emissions at the terminal.



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WEST ISLAND NEWS

| 24 Aug, 2005 | **City considers dormant rail line**

BY ANDY BLATCHFORD - The Chronicle

Concerned with the traffic woes of West Islanders and increasing air pollution, a Montreal environmental group is lobbying to resurrect the seemingly abandoned rail line that runs parallel to Highway 40, and the mega-city is listening.

The Doney Spur railway passes through both St. John's and Sources boulevards at level crossings just north of Hymus Boulevard. It was brought up by the Green Coalition's Avrom Shtern during presentations at Montreal's first public hearing on transportation last Thursday night.

With increasing pressure on city officials to provide solutions to traffic congestion on major arteries and highways in the West Island, the Doney Spur tracks, originally constructed for freight transport in industrial areas, could become the path for a frequent, light-rail commuter train.

Shtern spoke about the dormant rail line to transportation commission members at the meeting and referred to the Canadian National train tracks as "the backbone of light-rail transit in the West Island." The Green Coalition first proposed the line's commuter possibilities in 1989 and Shtern said it could link up to the Fairview Pointe Claire bus terminal via a pedestrian overpass or tunnel crossing Highway 40 for a cost-efficient alternative with less impact on the environment. "You're not going to get it for zero dollars, but it certainly makes more sense than the three-station métro extension to Laval," he said. "The best way to go is with off-the-shelf technology that's proven, so it doesn't break down. It leaves a very small footprint in comparison to a road."

Meanwhile, Claude Dauphin, Montreal's executive committee member responsible for public transport, said the Doney Spur is being considered by the mega-city as an alternative for West Island commuters.

"There's a group that is working on the transportation plan for the West Island and the Doney Spur," he told The Chronicle following the hearing at Montreal City Hall. "With the information that I have, it will be included in the transportation plan of the West Island and they will recommend to use the Doney Spur and I fully agree with that. I think it would be a good idea if one day we operate the Doney Spur. So we should look at that."

The western end of the line begins at Stillview Avenue in Pointe Claire and runs along the Trans-Canada — it passes over the highway near the Henri-Bourassa Boulevard exit — past Highway 13 where it eventually connects with the Deux-Montagnes/Montreal commuter line, which leads to the Bois-Franc station in the St. Laurent borough.

Source: The Chronicle

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W.I. on transit: Don't forget us

By **Ian Howarth, The Suburban**

The West Island Development Council (WIDC) wants to ensure that future expansion plans for Montreal's public transit network don't ignore the West Island.

That was the crux of the brief presented at last week's public consultations on the future of the Montreal region's transportation network at city hall, the first of three planned over the next two weeks. Leading the WIDC team was Georges Nydam, director and industrial commissioner for the Centre local de developpement de l'Ouest de l'Île.

"It's unfair that both Laval and Longueuil are a part of an expensive metro link-up with Montreal when they don't even pay taxes," said Nydam. "The West Island transportation system still reflects a 20-year-old plan when the suburbs was a place where people left to work."

He reminded the megacity's public transit committee the West Island is now an economic satellite to Montreal, where almost 50,000 people come to work every day, many on a transit system built to handle a fraction of the current ridership. Among the West Island's complaints:

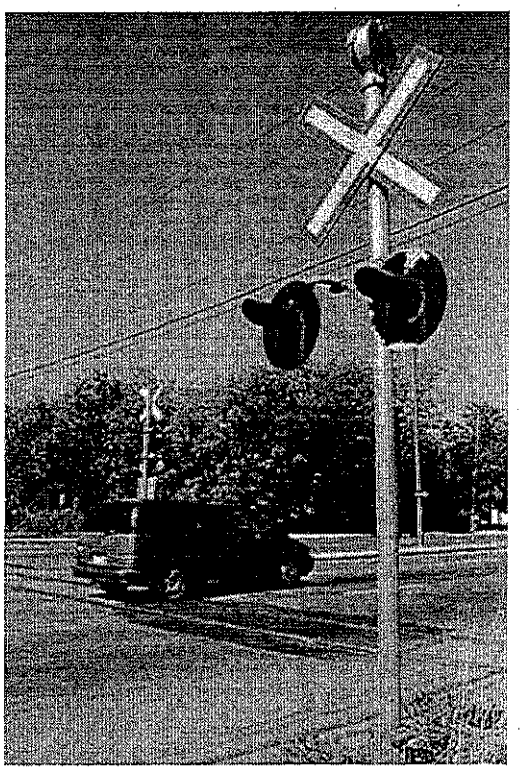
• The current Montreal-Rigaud rail line and bus service to both downtown and West Island are often slow and designed for rush hour schedules;

• Almost three out of every four commuters is travelling by car;

• Morning and afternoon rush hours now regularly see back-ups west of the Dorval Circle in the morning and at Sources Road in the afternoon.

The WIDC favours construction of an airport rail shuttle, part of the major overhaul of the Dorval Circle scheduled to begin in 2006.

"We do insist that the planning take into account its future integration in the public transportation system," said Nydam. "That means it must tie in with the metro system downtown and an intermodal bus station in Dorval."



Group wants better use of rail lines to get West Islanders downtown.

Ste. Anne de Bellevue borough councillor, Bill Tierney, who, along with Beaconsfield's Anne Myles and Kirkland's John Meaney, attended Thursday's public consultations, put it more bluntly: "It's in their (Montreal) interest to invest in us," he said. "We haven't gone into a bubble; we're a cash cow."

For Tierney and Myles, an improved transit system would mean easier access to the Baie d'Urfé and Ste. Anne's business parks as well as improved service to John Abbott College and the Macdonald campus of McGill University and the nearby Ste. Anne Veteran's Hospital. Together, they account for roughly 25,000 daily commuters.

Jacques Côté, a volunteer technical consultant for the WIDC and former president of CP Rail's eastern division, said expanding the current Dorval intermodal station should be a part of any future plans for improving West Island commuter transport.

"We need to link bus passengers with the proposed airport shuttle. The idea would be to have trains running more frequently and then gradually extend that to Ste. Anne de Bellevue.

"We're not saying build a metro extension to the West Island," Côté added. "We could have shorter trains for the less busy hours and longer ones for rush hours."

Green Coalition transportation spokesperson Avrom Shtern said his group is on the same page as West Island borough mayors and businesspeople.

"We know Montreal needs an integrated mass transit system, but we're not sure how committed the current administration is," Shtern said. "It depends on who you talk to."

Shtern's approach to improving the current transit system would be taken in steps, beginning with the use of old rail lines like the Doney spur which runs from Stillview in Pointe Claire, south of the Trans-Canada highway, then hooks up with the Two Mountains rail line near Highway 13. "We need to attract people by using conventional and available technology," he said.

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West Island transit alley is a great idea

HENRY **AUBIN**
ON TRANSIT

"It sounds like a perfect project for all the obvious Kyoto reasons."

I did a double take at the electoral platform of Gérald Tremblay's party. It contains a promise to build a project that's long struck me as very sensible – but which I'd given up writing about because it seemed like such a hopeless cause.

The promise concerns an obscure rail line on the West Island – the so-called Doney Spur. Tremblay's Montreal Island Citizens' Union would convert it into the first new piece of major public-transit infrastructure on the West Island in decades.

The 10-kilometre spur line starts at the border of Kirkland and Pointe Claire at Stillview Ave. It runs parallel to the Trans-Canada Highway and connects to the Deux-Montagnes rail line in St. Laurent. Its original role as a freight line serving local industry has become obsolete.

If transformed into a public-transit corridor feeding into the Deux-Montagnes commuter line or into a future métro station at Bois-Franc, it could alleviate traffic on the Trans-Canada.

It sounds like a perfect project for all the obvious Kyoto reasons. Still, tickled though I was to see this item in the platform, I'm holding my applause. Three important uncertainties cloud the project's prospects.

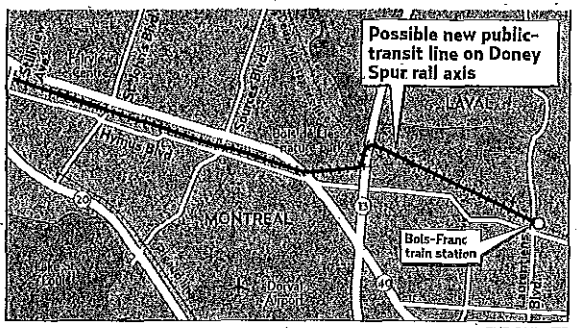
One concerns city hall's readiness to act. When I asked the chief of Montreal's urban planning division, Pierre Sainte-Marie, about the plan, he said no timetable existed. Nor was there even a preliminary plan.

Another question has to do with political pressure. Will there be enough of it to push Doney Spur high on Tremblay's agenda if he is re-elected?

Most West Island boroughs are demerging and have become politically irrelevant to MICU. The exception is the loyal borough of Pierrefonds-Roxboro, potentially a good supplier of Doney Spur's commuters. But it's only one of 19 boroughs – and one of the smaller ones at that. It's no sure thing it'll have the clout to make the scheme a city hall priority.

And then there's the most substantive question of all: What form of public transit would be best, a light train or a bus?

Environmentally, the answer is plain: Trains produce less air pollution and greenhouse gases than buses. Indeed, the rail option has received the support of the Green Coalition citizens' group for years and now it's also picked up support from a key local pol – MICU's main West Island stalwart, Pierrefonds-Roxboro mayor Monique Worth. She said yesterday she'd prefer trains to buses because they'd be less noisy and smelly when the route passes through woods near Bois de Liesse.



THE GAZETTE

True enough. Yet trains would also be more expensive than buses. Would they be cost effective?

A 2002 study by McGill's School of Urban Planning casts useful light on this matter. It estimates the capital cost of a two-train system at $125 million, with annual operating costs coming in at $6 million.

That's a lot considering the ridership. The study estimates the Doney Spur line would attract only about 1,000 *new* train users every day – "new" meaning riders who don't already take other trains. Another 2,500 or so people who currently patronize either the Deux-Montagnes or Rigaud lines would also use the new axis.

There is some benefit to lightening the load on the Deux-Montagnes axis in particular. That line, now jammed, would be able to take on more new passengers.

Still, it would be hard to justify the cost. The McGill study did not look at the bus option, but it would be far more affordable. That is in fact the option that MICU's platform endorses.

Yet it would be premature to slam the door on rail. The McGill study concludes buses might not retain their advantage in the long run. It notes a "tremendous amount of land that is sitting empty" at the spur's western end and that is ripe for housing. A dense housing development within walking distance of a train might be attractive to many commuters.

What Worth proposes goes against her party's platform. She wants to take advantage of the fact the concept is still in infancy by holding public hearings. These would weigh all options instead of proceeding blindly with buses. Sounds good.

If the West Island were to continue to be developed with dispersed homes on large lots, a new train line would never make sense. But homes closer together could change that.

The dividends could be great. Here's something to consider when paralyzed on the Trans-Canada. The McGill study estimates a train could go from Fairview Centre to Central Station in 32 minutes.

The Bush administration has been preaching energy conservation

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Avrom David Shtern,

(514)-482-4882.
Tuesday, Sept. 27, 2005.

Letters,
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suite 200,
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Dear Editor,

Indeed, rail commuting should be in harmony with the environment! Henry Aubin's opinion piece about transit oriented development along passenger rail lines underscores the need for prudent planning. (Re: "A Rational Way of Extending Commuter Train Lines", Henry Aubin, The Gazette, Sept. 27, 2005, p.A27.). Just running trains during rush hour will not encourage motorists to abandon their cars for public transit. Unlike the 1950's, many people do not live in the nine to five straight jacket anymore! Working hours vary, lifestyles vary. Reverse commuting from the central core to outlying communities is becoming more common.

The Montreal area needs full service commuter rail lines with frequencies or headways of at least every 20 minutes all day long. This would obviate the need to consult a schedule! Presently, only the Two Mountains line comes close to being a full service train. Its popularity has caused capacity problems. Overcrowding and the lack of parking strongly suggest the need for even more trains and parking facilities along the line.

The Rigaud line is also in need of an upgrade: Increased frequency requires full centralized traffic control signalling, more power switches, and continuous welded rail throughout. A third track between Vendome and Montreal West Stations would relieve congestion and increase flow.

Inconveniences such as the steep flight of stairs at Sainte-Anne-de-Bellevue Station should be corrected.

Commuter rail is an ideal form of transport since it is relatively cheap to operate, and is energy efficient. Its reliability factor is an important draw for ridership. Therefore, the proposed lines to Saint-Jerome, Mascouche and Repentigny should just be the starting point. Extensions to Chateauguay, Valleyfield and Varennes should be a priority.

Moreover, lightly used or dormant secondary rail lines must be conserved for future light rail use. The Doney Spur in the West Island and the Lasalle Loop have the potential to be the new surface metros, operating with schedules and fares comparable to existing underground metro lines and conveying passengers to and from Montreal's downtown core. Selfpropelled biodiesel trains could be used initially to avoid the extra costs associated with electrification.

Proposals to place a BRT, (Bus Rapid Transit), corridor on the Doney Spur is a recipe for failure. Bus service will not capture the commuting public's imagination. Reserved bus lanes make sense on Highways 20 and 40. But they will not attract riders in significant volume to justify the destruction of a railway right of way and the expense of constructing a reserved corridor. In general, buses only appeal to students, the elderly and those who don't own cars. Buses do not "...induce people to live near them." (Henry Aubin, The Gazette, Sept. 27, 2005, p.A27). But, commuter and light rail lines do! They are seen as permanent fixtures that improve the quality of life.

Incremental improvements to rail lines and the use of proven off the shelf technology are key to keeping capital costs down and increasing ridership.

Yours Sincerely,

Avrom David Shtern

A rational way of extending commuter train lines

HENRY **AUBIN**
ON TRAIN LINES

"Portland's suburbs can get commuter trains only if they commit to densely developing the areas immediately around the stations."

Five hundred east-end residents descended on Central Station on Sunday to demand a new commuter-rail line linking them to downtown. They have a strong case. As a glance at the map will show, they live on the only part of Montreal Island without rail transport.

At a time of mounting concerns over global warming, train travel makes more sense than ever. Building more big roads – such as the Charest government's cherished Highway 25, also in the east end – does not.

Some east-end residents would prefer better métro service. Yet extending the métro from Honoré-Beaugrand, the easternmost station, to the end of Montreal Island would mean digging a 12-kilometre tunnel; the cost would approach $2 billion. The rail line's capital costs, however, would be only about $92 million, according to the province's Metropolitan Transport Agency. The agency expects to propose the project to the Charest government later this fall.

So far, so good. But here's the hitch.

The train would not stop at the end of the island. It would continue for 15 kilometres, making stops at Charlemagne, Repentigny/Le Gardeur and L'Assomption.

Would this mean that the line would encourage people to live far off the island? Would it thus accelerate urban sprawl and the automobile-dependent, global-warming-friendly lifestyle that goes with it?

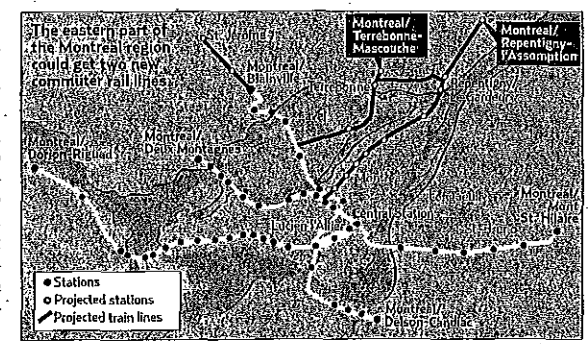
There are three ways to answer those questions.

The first way, embraced by provincial and local politicians, has in recent years produced three new commuter lines – to Mont St. Hilaire, Delson-Candiac and Blainville. According to this orthodoxy, urban sprawl is not a problem – and even if it were, trains wouldn't encourage it. The trains simply serve people who already live off-island.

The second view is that the trains do indeed influence people to move to places far from the city but near the train, spurring sprawl. Anecdotal evidence supports this idea. Just yesterday a colleague mentioned she was looking for a house near St. Eustache precisely so that she could commute on the Deux-Montagnes line.

The third view is the most striking. It develops the second. It is advanced by Richard Bergeron, who is running for Montreal mayor for the underdog Project Montreal party.

Bergeron, whose day job is that of urban planner, says it's



THE GAZETTE

obvious that rail lines induce people to live near them, instead of closer in. But, he says, this does not *necessarily* spur sprawl. Sprawl does not mean the growth of distant suburbs per se; rather, it means the growth of suburbs so thinly developed that residents require cars for simple errands like getting a carton of milk.

Montreal, he says, might usefully follow the example of Portland, Ore. Its suburbs can get commuter trains but only if they first commit to densely developing the areas immediately around the stations with housing and stores. Oceans of parking lots next to the station are forbidden: People can walk from home to the train.

There's nothing new-fangled about this approach. Suburbs along the Lakeshore sprouted up voluntarily next to the stations early in the last century, as did Mount Royal.

Yet, somehow, the Montreal region has forgotten this wisdom. Of all the suburbs strung out along the three recent lines, only Ste. Thérèse and St. Bruno are concentrating development around the stations, Bergeron says.

I should point out that mayoral candidate Gérald Tremblay favours the new east-end line in its entirety. Rival Pierre Bourque supports a rail line connecting the Honoré-Beaugrand métro with Repentigny/Le Gardeur. Bergeron is the only one to take into account the effect of the project off the island.

There's no good reason why the Charest government, which claims to favour sustainable development, cannot insist on Oregon-style growth around stations.

Such a policy would be the more timely since the rail line to L'Assomption is not the only such project in the transport agency's eye. It is also working on a proposal to connect Mascouche with the island. And the Blainville line is to extend to St. Jérôme next year.

Let's make rail commuting consistent with Kyoto.

Henry Aubin is The Gazette's regional-affairs columnist.
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CHRISTIAN WOLMAR

Rail ultra-lite! A powerful ca

Light rail schemes are notorious for their high capital costs, but CHRISTIAN WOLMAR believes there is another, cheaper way forward for tramway projects that should be taken more seriously.

The clearest casualties of the cost escalation on the railways have been tram schemes. When John Prescott published his ten-year transport plan five years ago, he promised there would be up to 25 new light rail lines in major cities by 2010.

There is no way that target will be reached even by 2020 at this rate. Indeed, we will be lucky to see five by 2010, let alone 25, so a new approach is needed and there may well be a very different type of light rail that provides the answer.

Just a quick *tour d'horizon* around the country shows that virtually all proposed light rail schemes are in trouble and many face long years on the drawing board with little chance of coming off it. In Manchester, the three proposed lines - the centrepiece of the city's regeneration programme - have been promised £520 million by the government, to cover the original expected budget, but ministers have refused to sanction the estimated £240m cost overrun, leaving the situation in limbo. Indeed, they have only reluctantly agreed under duress to provide £58m towards the £102m required to upgrade the original Bury-Altrincham line that has been such a huge success.

In nearby Liverpool, the local council is desperate to see a line from the city centre to Kirkby built in time for the city's inauguration as European City of Culture in 2008 and the Merseytram scheme was promised government support amounting to £170m. However, the cost to the public purse has risen to £325m, and now Alistair Darling, the Transport Secretary, has refused to sanction a £34m increase in his contribution which was needed to keep the project on track (*RAIL* 518), even though this was pretty much in line with inflation. Other schemes in Leeds, Blackpool - where the existing system needs major refurbishment - South Hampshire, Croydon, Nottingham and Bristol are all stalled or proceeding at a snail's pace.

It has been pointed out in *Private Eye* that the scheme where progress is most promising is in Edinburgh where, coincidentally, Alistair Darling happens to have his constituency, but that is just malicious political tittle-tattle.

The other exception is the Docklands Light Railway, which is really a misnomer anyway as it does not run on the streets and is really a proper grown-up railway. The DLR has sprouted extensions almost as fast as bindweed takes over my garden and has been given a further boost by the success of the Olympics bid.

Probably Merseytram is the most inexplicable of these since not much extra money was being asked for and the scheme is an important part of a major regeneration project attracting nearly £1 billion of private money. It seems that the government is using the excuse of cost rises to withdraw support it had promised initially in the hope of being able to redeploy the money to the cash-guzzling railways.

As the list above shows, the reasons for the delays and cancellations are inevitably cost increases, but contrast this with roads projects. The Campaign to Protect Rural England recently discovered that government figures show the cost of new road building has spiraled, with the bill for 96 national and local road schemes increasing by £1.3bn since first approved, an average of more than £10m per scheme. CPRE points out that ministers have been quick to act on rising costs on the railways by scrapping or postponing light rail projects, but road schemes always seem to get the go-ahead.

Light rail projects are indeed very expensive in this country but the reasons have little to do with the schemes themselves. For example, the National Audit Office report *Improving public transport in England through light rail*, published in April 2004, pointed out that promoters of light rail schemes have to pay the full cost of moving services such as gas and electricity while those in France or Germany do not; moreover, the Department for Transport has insisted on expensive procurement methods involving transferring risk to the private sector which is often not appropriate; and, as this column pointed out recently (*RAIL* 510), buses are allowed to compete rather than be made to integrate with tram services, which makes them less viable economically.

One less-publicised conclusion of the NAO was its recommendation that funding should be provided by the government for 'innovative light rail' to be developed and demonstrated. So it is strange that the DfT has never given serious attention to a concept that is gaining credibility and seems a very obvious way forward: Ultra Light Rail. This is not a new fat-free drink but an idea whose time may have come.

Much of the high cost of light rail schemes is in installing the infrastructure to provide a continuous supply of power for the whole length of the route. What, instead, if you had self-powered vehicles that would not require the whole hassle of so much streetwork and which could be powered by relatively 'green' methods?

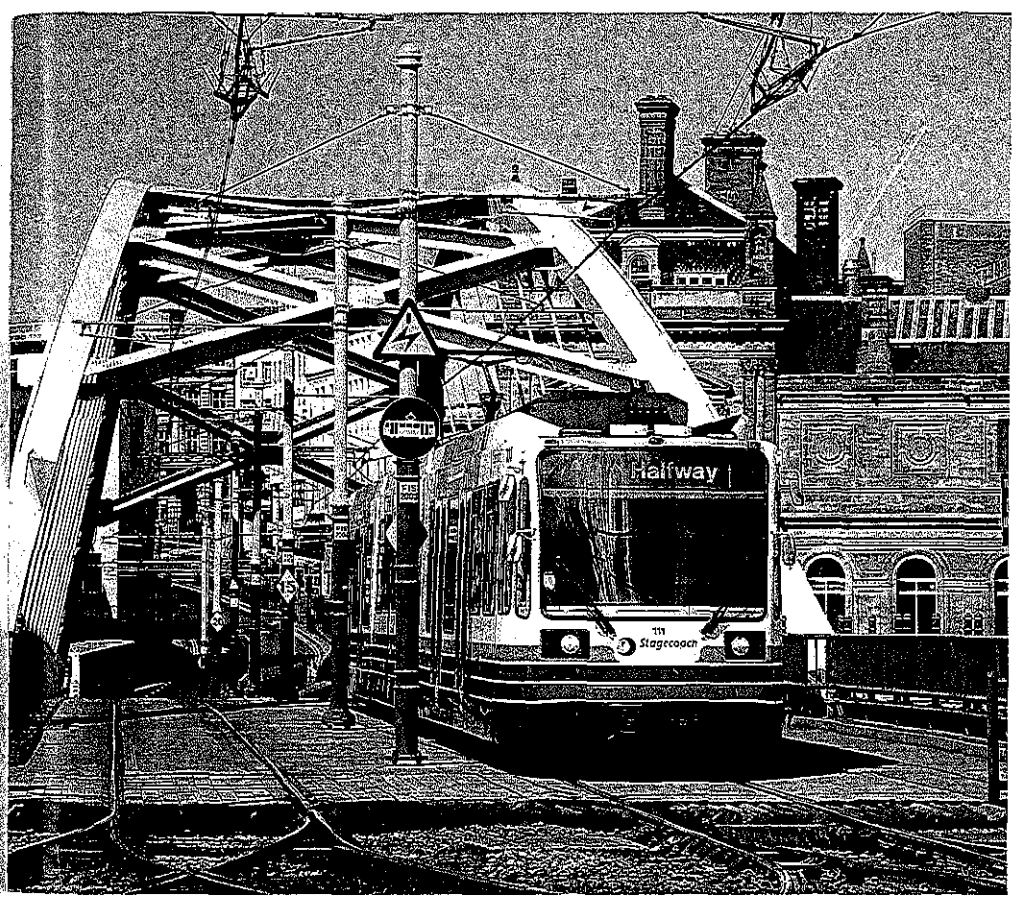
One of the main promoters of the idea, James Skinner of Sustraco, has long been lobbying the department about the concept and has come up against a lot of brick walls. The most bizarre is that he cannot get support from the Low Carbon Vehicle Partnership, a government-created agency to support development of low-carbon vehicles, because light rail is not categorised by government as 'road transport'. This means that LCVP is prohibited from any involvement with Ultra Light Rail, even though nobody can dispute the fact that trams run on roads and compete directly with buses.

"... it seems obvious the idea of self-powered trams should be considered in the light of the huge infrastructure costs of providing new lines and the lack of money available."

Write to Christian Wolmar c/o *RAIL*, Bretton Court, Bretton, Peterborough, PE3 8DZ. Fax: 01733 282720
Christian Wolmar can be reached through his website, which has an archive of past articles, at *www.christianwolmar.co.uk*

From policy to platform - a no-nonsense, informed, pithy and personal view

se for self-powered trams



Tram systems, while popular with the public, require huge capital investment and often fail to make a profit. The system in Sheffield had an uncomfortable introduction but is now a very appealing alternative to the citizens of the Steel City. A Supertram passes Ponds Forge with a service to Halfway on May 8. KEITH DUNGATE.

Skinner ran the Bristol Electric Railbus, which operated a demonstration service along the Bristol Harbourside, on existing standard-gauge rail, from 1998 to 2000. It carried 50,000 fare-paying passengers and the tram proved highly popular with the public. The six-ton vehicle, with capacity for 35 passengers, was powered by 'green' electricity and ran on energy stored in a flywheel. It therefore had zero emissions, no pantograph or overhead wires and no electric current to be earthed through the rail. As a result, in 2000, Bristol included an ULR project in its Local Transport Plan but no money has been forthcoming from the department, even though the cost would be a handful of millions.

Skinner also recently gave evidence to the public inquiry into the guided busway proposed by Luton for the disused Luton to Dunstable rail route. A report backed by Amec, the engineering firm, estimated that the cost of converting the route to ULR would be around £25m, as compared with the Luton proposal for a guided busway costing £78m.

Skinner points out that diesel for buses is subsidised to the tune of £1m per day, a cost that is bound to increase dramatically as oil prices top $60 per barrel. "Conventional light rail schemes are very expensive," he says, "and I can see why the department is reluctant to fund them. But why have they not given proper consideration to the idea of ultra light rail?"

Indeed. The whole idea of self-powered trams seems an obvious one. The metal-on-metal of rail systems is far more fuel efficient than rubber-on-road, and trams have all kinds of advantages over buses in town centres.

But Skinner's ULR concept goes much further. He would like to see fuel cell-driven trams. A fuel cell operates like a battery, with oxygen passing over one electrode and hydrogen over the other, generating electricity, water and heat. The only problem is that because of the cost of producing the hydrogen, fuel cell power costs 100 times more than conventional diesel or electricity.

He envisages a number of ways of reducing that. The key is to have an on-board energy storage system - a battery - similar, in principle, to that used in the Toyota Prius and other cars and even in some buses. This uses a conventional engine to top up a battery which powers the vehicle. By running the engine at the optimum rate continuously, it saves enormous amounts of fuel and emissions. There are, too, ways of making the vehicle lighter through modern design techniques, which also saves fuel. Trams also have a much longer life - up to 30 years compared with eight to 13 for buses - which also makes the more expensive initial cost worthwhile.

Ultimately, a flywheel system of stored energy, as with the Bristol tram, may be commercially viable but, even without such new technology, it still seems obvious that the idea of self-powered trams should be considered in the light of the huge infrastructure costs of providing new lines and the lack of money available.

Skinner estimates that the cost of laying the infrastructure could be as little as £1m per kilometre, compared with ten or 15 times that for conventional light rail. Of course the vehicles would be more expensive and it may be only possible to have single-coach vehicles, but the extra driver costs would be less than the expense of servicing the huge capital debt incurred by building the infrastructure.

Now there may be a major hole in this suggestion. Or it may be that the vested interests of manufacturers, and the timidity of politicians, both local and national, mean that only 'heavy' light rail - as it were - schemes are ever considered. But surely the concept of Ultra Light Rail deserves a bit more attention than it has received hitherto, especially with subsidies for buses on an ever-rising curve and tram schemes falling off the drawing board like flies hit by killer spray.