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## Submission to the SAGE Commission

Good day,

I attach below some recommendations for consideration by the SAGE Commission as regards increased government efficiency and/ or cost-savings for the Government.

As a preamble, I would like to state that, while the current economic crisis and subsequent impacts on Government finances is unfortunate, I feel that it also offers our island a great opportunity to lay the basis for a more sustainable future, as well as potentially offering new opportunities, including in the development of the so-called 'green sector'.

I have limited my proposals to those of cost-savings or increased efficiency.

I have not generally included proposals for generating government revenue, as that seemed outside the remit of the SAGE Commission.

I do, however, want to stress that, in my opinion:

- Public sector productivity cannot be measured in the same way as private sector productivity.
- Budget cuts, including redundancies (which are almost inevitable with privatisations) would be economically damaging, with 'knock-on effects' which will prove counter-productive in the long-term, both in terms of service provision and for the local economy.
- It is my view that public sector debt is currently more sustainable than the private sector debt that created the economic crisis.
- It is important that the Government takes the opportunity presented by the current economic crisis to place Bermuda on a more sustainable path, in particular by encouraging a shift to renewable energy (including transport) and reducing economic and racial inequalities. Incentives, policies and infrastructure need to be developed for the former, and policies, such as introducing a living minimum wage, a restorative justice approach to crime, and a public health approach to the issue of drugs (rather than the current criminal approach) will be important for the latter. Other issues that should be considered for creating a more just society include equal parental leave as opposed to maternity leave, and

workforce equity plans to investigate on-going racial and sexual inequalities in the workplace.

- The economic crisis offers the opportunity for a 'spatial fix' to both maintain skills and local economies during the crisis, while simultaneously improving our national infrastructure to face the challenges on the horizon, namely an ageing population and climate change. An intensive focus on creating a more inclusive and accessible built environment and transport system is required. Similarly, there are major infrastructure projects, such as replacing the Causeway, which are required and could benefit the local economy in the long-term.

It has not been possible in this document to fully cost the potential savings resulting from the recommendations noted, or to fully reference relevant academic, or other, reports/articles to support the recommendations made.

Where possible, reports or articles are cited when they are thought to be useful indicative references, but such citations are far from exhaustive. For the sources cited, purely as examples, these (and others) can be made available to the SAGE Commission (or relevant Government Department) as requested.

Many of these recommendations could be further developed, with full referencing and modelling when and as necessary.

Yours sincerely,

Jonathan Starling

## Recommendations

- 1) The Sustainable Development Department (SDD) should be moved from its current Ministry position to Cabinet. Within a Cabinet context it can work as a complement to the Central Policy Unit (CPU) and fulfil its mandate of applying sustainable development to all levels of government and policy. Sustainable development, which goes far beyond the 'popular' view of it as an 'environmental issue', includes sustainable government finances, policies and public administration. Its current placement within the Ministry marginalises its role and ability to fully execute its mandate, both within Government and in the popular consciousness. Furthermore, locating the SDD within the Cabinet Office requires the Cabinet Secretary to facilitate the sustainable development mandate at all levels of Government.
- 2) Ensure PATI is made operational as soon as possible, even in a phased manner. Public scrutiny will reduce the opportunity for wasteful expenditure of public monies by empowering the public to hold the Government accountable.
- 3) Place a cap on numbers and salaries of consultants, with any exceptions to these caps requiring parliamentary approval.
- 4) Ensure all Government purchases of electrical appliances are of the most efficient available, and complete an audit of existing Government appliances to investigate the cost-benefit analysis of replacing energy-efficient appliances with more efficient ones, saving Government long-term costs in terms of electricity consumption<sup>1</sup>.
- 5) For Government air-conditioners, identify, and ensure that all air-conditioning units are set to an optimal temperature setting. This will assist in long-term cost-savings without compromising the workplace atmosphere. Ensure that all future a/c systems installed in Government buildings have a minimum Seasonal Energy Efficiency Ratio (SEER) rating of 20<sup>2</sup>.
- 6) Install motion detectors for lighting in all Government buildings (with a particular focus on hallways, bathrooms and kitchen areas)<sup>3</sup>.

<sup>1</sup> See, for example, Koomey, J.G., Piette, M.A., Cramer, M. & Eto, J.R. (1996) *Efficiency improvements in US office equipment – Expected policy impacts and uncertainties*, Energy Policy, 24(12), which noted, based on 1996 technologies, savings of up to \$1billion within four years of adopting the most efficient office appliances in the US, or 'put another way, a one-time per capita expenditure of roughly US\$0.02 in the USA has purchased annual monetary benefits per capita of about US\$4 pa for each and every US resident'. It is likely that with improvements in technology since, these savings will be greater today,

<sup>2</sup> See, for example, Hastbacka, M, Diekmann, J. & Brodrick, J. (2012) *High-SEER Residential AC*, ASHRAE Journal. This paper argues that SEER 20 AC could, over a 10-year operating life, save \$2000 over a conventional SEER 13 AC, with the operating cost of a SEER 20 AC being 35% less than SEER 13 AC's. Online at: <http://home.comcast.net/~tureston2011/BES/HVAC/ASHRAE-HighSEERUnits.pdf>

<sup>3</sup> For example, see Dong, B. & Andrews, B. (2009) *Sensor-Based Occupancy Behavioural Pattern Recognition For Energy And Comfort Management In Intelligent Buildings*, 11<sup>th</sup> International IBPSA Conference, which cited a 30% reduction in energy use after installing motion sensors. Online at: [http://ibpsa.org/proceedings/BS2009/BS09\\_1444\\_1451.pdf](http://ibpsa.org/proceedings/BS2009/BS09_1444_1451.pdf)

- 7) Phase in the conversion of lighting in all Government buildings to LED lighting. LED lighting uses up to 90% less energy than traditional incandescent bulbs and lasts for 30k-45k hours, compared to only 1k hours for traditional incandescent bulbs. While compact fluorescent bulbs are also more efficient than incandescent bulbs (75-80% more efficient, and lasting 6k-10k hours) LEDs offer greater efficiencies in the long-term<sup>4</sup>.
- 8) Implement a new pilot study on energy-efficient street lighting. A pilot study implemented in 2011 was aborted<sup>5</sup>, however an RFP from May 2013 (stating that Bermuda has approximately 4000 'cobra head' type street lights with either 70w or 150w high pressure sodium lamps) indicates there is currently a move to upgrade the islands street lights<sup>6</sup>. It is not clear from this RFP to what degree the new installations will seek to improve upon the 2011 pilot study. While conversion to LED bulbs may not be appropriate at all locations, improved characteristic high pressure sodium (HPS) lights (with an IP65 classification) average 16% energy savings, along with 17% total lower installation costs<sup>7</sup>. Rather than merely upgrading the existing street lighting network, it is necessary to completely redesign the network, including the use of more efficient dimming systems, the use of white light in areas of high pedestrian traffic, along with other technological developments, all of which may lead to improved long-term cost savings<sup>8</sup>.
- 9) Complete a full energy audit of all Government buildings to identify any additional energy savings that may be made, with subsequent energy audits to be mandatory every five years in order to measure successes and identify future energy savings<sup>9</sup>.
- 10) Ensure all non-essential electrical appliances are turned off and/or unplugged when not in use (especially at the end of the working day) to reduce unnecessary power wastage.
- 11) Install water-filters in all Government buildings to reduce expenses related to maintaining and purchasing of water coolers and associated water.

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<sup>4</sup> As cited in the Bermuda 'Energy Efficiency Fact Sheet – Lighting', 2012 - [http://www.gov.bm/portal/server.pt/gateway/PTARGS\\_0\\_2\\_18425\\_728\\_231733\\_43/http%3B/ptpublisher.gov.bm%3B7087/publishedcontent/publish/ministry\\_of\\_energy\\_telecommunications\\_and\\_e\\_commerce/dept\\_energy/energy\\_efficiency\\_fact\\_sheets/efficiency\\_fact\\_sheet\\_lighting.pdf](http://www.gov.bm/portal/server.pt/gateway/PTARGS_0_2_18425_728_231733_43/http%3B/ptpublisher.gov.bm%3B7087/publishedcontent/publish/ministry_of_energy_telecommunications_and_e_commerce/dept_energy/energy_efficiency_fact_sheets/efficiency_fact_sheet_lighting.pdf)

<sup>5</sup> The pilot study involved installing LED bulbs at five locations, involving 68 street lights. There appear to have been concerns about the particular bulbs used rather than the concept itself, although no official report appears to have been made public. The objective of the project was to achieve a 50% reduction in energy costs for street lights. See the Royal Gazette article on this at:

<http://www.royalgazette.com/article/20111028/NEWS/710289991/0>

<sup>6</sup> See an online version of the RFP at:

<http://www.royalgazette.com/article/20130522/CLASSIFIEDS04/305159995>

<sup>7</sup> See Kostic, M & Djokic, L (2009) *Recommendations for energy efficient and visually acceptable street lighting*, Energy, 34(10).

<sup>8</sup> See again Kostic & Djokic (2009).

<sup>9</sup> See, for example, Murray, J, Pahl, O, & Burek, S (2008) *Evaluating the scope for energy-efficiency improvements in the public sector: Benchmarking NHS Scotland's smaller health buildings*, Energy Policy 36(3); see also Schleich, J (2004) *Do energy audits help reduce barriers to energy efficiency? An empirical analysis for Germany*, International Journal of Energy Technology & Policy, 2(3) – both of which indicate the importance of periodic energy audits to increase energy efficiencies and subsequent cost-savings.

- 12) Install grey-water systems in all Government buildings to reduce water wastage and associated costs.
- 13) Provide all Government documents in an electronic format are available online, thus reducing the printing costs for Government overall.
- 14) Ensure all Government printers are set to a default setting of low-ink and double-sided.
- 15) Continue the process of decentralising Government offices outside of the City centre, with a particular focus on moving offices to north-east Hamilton, Southside, St Georges, Somerset and Dockyard. This will reduce rental costs while also reducing traffic congestion to the City of Hamilton while encouraging new service centres throughout Bermuda.
- 16) Catering for Government may be done 'in-house' using the facilities and personnel at the Bermuda College, Warwick Camp and the various Corrections facilities. In addition to cost-savings, this catering approach could also benefit College students or prisoners in terms of developing/obtaining skills and experience. In a related manner, catering events should use reusable plates, cups and cutlery, which will both reduce costs (in terms of continuously buying new disposable plates/cups/cutlery) and waste.
- 17) Small Government offices may be cleaned by their staff rather than hiring cleaners. Incentives or compensation for staff involved, such as time in lieu or flexitime, may be introduced to encourage this.
- 18) Provide all Government workers with free public transportation passes, reducing traffic congestion and subsequent related costs, along with increasing overall productivity by reducing time lost due to traffic congestion overall. Provide incentives (such as time in lieu) for workers able to demonstrate consistent use of public transport.
- 19) Provide cycle storage and shower facilities in Government buildings to encourage greater use of cycle or walking commuting to work, and provide incentives (such as time in lieu) for workers demonstrating a commitment to these forms of transport. The health benefits of cycling or walking to work will, in the long-term, reduce the cost of health-care provision for Government employees<sup>10</sup>. Also investigate the cost-benefits of upgrading the railway trail (including construction of bridges where necessary) as a cycle path to encourage more active commuting, with long-term benefits to public health (and subsequent savings on health-care), as well as a potential visitor enhancement for tourism.

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<sup>10</sup> There is a wide range of literature indicating the health benefits of cycling or walking, especially as relates to reductions of ischaemic heart disease, cerebrovascular disease, depression, dementia and diabetes, along with reductions of noise and air pollution. See for example Woodcock, et al (2009) *Public health benefits of strategies to reduce greenhouse-gas emissions: urban land transport*, *Lancet*, 37(4). Online at: [http://www.researchgate.net/publication/40035431\\_Public\\_health\\_benefits\\_of\\_strategies\\_to\\_reduce\\_greenhouse-gas\\_emissions\\_urban\\_land\\_transport/file/79e41506359f94a8b3.pdf](http://www.researchgate.net/publication/40035431_Public_health_benefits_of_strategies_to_reduce_greenhouse-gas_emissions_urban_land_transport/file/79e41506359f94a8b3.pdf)

- 20) Replace bus tokens and passes with contactless smart cards similar to the Oyster Card used in London<sup>11</sup> or the Ridacard used in Edinburgh<sup>12</sup>. These cards can be ‘pay-as-you-go’ or issued for weekly, monthly or annual use, with vending machines or ‘top-up’ machines installed at terminals or shops, as well as online. These cards reduce the expense involved in the counting and separation of cash, tokens or tickets, while also providing basic data on public transport usage, allowing for improvements to be made to the overall network. Smart cards used by tourists may be collected at departure and recycled for subsequent tourists (being reprogrammable). The use of the Oyster card in London has delivered significant benefits to the public transport system there, including *‘faster passenger throughput, improved convenience, reduced queuing, better understanding of travel patterns and reduced fare evasion’*, as well as savings in general, especially in terms of allowing ticket staff to be reallocated to other aspects of the transport system, and encouraging greater overall use of the public transport system<sup>13</sup>.
- 21) Establish new criteria for attending overseas conferences. This should ensure that travel and hospitality costs follow strict objective criteria. In addition, for all overseas travel (not required for maintaining professional designation) to require Cabinet approval, along with quarterly reporting of costs to Parliament.
- 22) Where possible, all meetings (including both overseas and on-island) to be held via teleconferencing.
- 23) Establish a beverage container deposit system and relevant legislation to reduce waste-collection costs. According to data found in the 2005 State of the Environment report<sup>14</sup>, 29% of household waste consisted of plastic (15%), glass (9%) and metal (5%)<sup>15</sup>. While it is not clear from this data how much of this consisted of beverage containers, it is likely that beverage containers did contribute to these figures. Furthermore, data on litter, included in the same 2005 report, noted that beverage related items made up to 37% of all litter, with beer bottles making up almost 50% of all litter on secondary roads (citing 1991 and 1993 surveys)<sup>16</sup>. While having an effect on property values and the ‘Bermuda image’ for tourists, these beverage containers also pose a public health, in terms of both lacerations from broken glass and as breeding grounds for mosquitoes (and subsequently, potentially, malaria and dengue fever). Introducing a beverage container deposit system could thus reduce the amount of government resources used for both curb-side waste collection and roadside collection of litter, while also enhancing property values, the Bermuda image and reducing potential health-care costs<sup>17</sup>.

<sup>11</sup> See online at: <http://www.tfl.gov.uk/tickets/27298.aspx>

<sup>12</sup> See online at: <http://lothianbuses.com/timetables-tickets-maps/fares-and-tickets/ridacard>

<sup>13</sup> See, for example: Turner, M & Wilson, R (2010) *Smart and integrated ticketing in the UK: Piecing together the jigsaw*, Computer Law & Security Review, 26.

<sup>14</sup> State of the Environment Report, 2005 - <http://www.conservation.bm/publications/projects-reports/state%20of%20the%20environment%202005.pdf>

<sup>15</sup> State of the Environment Report, 2005, p.173.

<sup>16</sup> State of the Environment Report, 2005, p.181.

<sup>17</sup> For example see Lavee, D (2010) *A cost-benefit analysis of a deposit-refunded program for beverage containers in Israel*, Waste Management, 30, which found (from a meta-analysis) that deposit-refund programs

24) Institute a 'pay-as-you-throw' (PAYT) system for residential curbside waste collection. Each residential unit to be provided with a 'free' single 32 gallons waste container (with secure lid and wheels), with the option to pay (at an exponential rate) for either additional containers or larger containers (64 and 96 gallons, respectively). Containers for recyclables to be provided for 'free'. Such a strategy will not only have aesthetic and public health benefits over the existing system of just trash-bags (reducing, for example, littering caused by torn bags, or incidents of rats), but will also generate an economic incentive for reducing curbside waste, encouraging recycling and composting (see below). Similarly, it allows for the cost of collection and disposal to be partially recuperated. Fines for failing to comply with the system (with only waste within containers to be collected) could also be implemented. As opposed to the existing 'flat-rate' system, PAYT allows those who produce less waste to pay less, while those producing more waste will pay proportionally, helping reduce 'free riders' who are subsidised under the flat-rate system. PAYT also helps reduce costs involved in waste separation<sup>18</sup>.

25) Establish a pilot neighbourhood food composting scheme (expanding on the existing 'backyard composting program') to determine the cost-benefits of implementing an island-wide composting scheme (including communal neighbourhood compost units and/or individual household composting units) to ultimately reduce waste-collection costs. It is worth noting here that, according to the 2005 State of the Environment report, food-waste comprised up to 18% of residential trash (the second largest component after paper)<sup>19</sup>. Composting of food waste in this manner might subsequently reduce garbage rates by at least 18%, reducing the current strain on the collection system<sup>20</sup>. There may also be additional benefits, largely indirectly, for the population in terms of encouraging household food production (of vegetables and herbs), which may encourage a healthy diet, as well as exercise in the form of gardening. Both of these may subsequently lead to long-term savings in terms of health-costs and lost productivity due to health-related issues.

26) Install in-vessel composting systems at the Marsh Folly Composting Facility. Currently composting is conducted there using a 'row and furrow' system. In-vessel composting

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are 'economically beneficial for the national economy. Additionally, it can be seen that net benefits are positive for all container types examined – plastic, glass and aluminium. On average, the benefit is about 1.36 higher than the cost, so that even if actual costs are 30% higher than our estimate, implementing the program would still be worthwhile' (p.344). See also, Hogg, D, Fletcher, D, Elliott, T & von Eye, M (2010) *Have We Got the Bottle? Implementing a Deposit Refund Scheme in the UK*, a report for the Campaign to Protect Rural England, which estimated that, at a cost of £84 million pa to set up, and £700 million pa to run, the scheme would still save local authorities £160 million pa, with likely additional benefits of £69 million pa in reduced greenhouse gas emissions and £1.2 billion pa in reducing litter disamenity. It is also worth noting that 'bottle bills' exist in Barbados and the Turks & Caicos Islands (as well as numerous US States and Canadian Provinces), on which a Bermudian model may be based.

<sup>18</sup> For a general overview of PAYT systems, see Dahlen, L & Lagerkvist, A (2010) *Pay as you throw – Strengths and weaknesses of weight-based billing in household waste collection systems in Sweden*, Waste Management, 30(1); see also Skumatz, L (2008) *Pay as you throw in the US: Implementation, impacts and experience*, Waste Management, 28(12).

<sup>19</sup> State of the Environment Report, 2005, p.173.

<sup>20</sup> A pilot study in New Zealand found a 25% reduction in household curbside waste through promoting household composting – see Gillan, et al (2004) *Reducing Curbside Waste Volumes by Promoting Household Composting*, Journal of Environmental Systems, 30(4).

would produce finished compost within 28-42 days compared to the current six months; in addition, in-vessel composting requires a much reduced 'footprint', reduces the risk of combustion, is able to remediate contaminated soil and allows for greater odour control<sup>21</sup>. Converting to in-vessel composting would result in long-term savings for the government, while also reducing the costs involved for control of fires at the site (and resulting public health and roof-cleaning costs), and provide the opportunity to convert a large area of the site into park amenity, resulting in increased property values (and thus government revenue) as well as resulting savings from reduced health-care costs in the long-term (through increased physical activity in using the park and reducing stress resulting from proximity to an environmental disamenity, the row-and-furrow composting).

- 27) Decriminalise personal possession of marijuana (up to one ounce), allowing police resources to be redirected towards dealers rather than consumers<sup>22</sup>.
- 28) Tax junk food and subsidise health food. Convene a panel of public health and nutrition specialists to develop respective lists of junk and health foods, and set increased taxation/duties for junk foods, with the resulting revenue being used to subsidise the cost of health foods. Such a policy may reduce the long-term costs of health-care for obesity, diabetes and cardio-vascular diseases<sup>23</sup>.
- 29) Increase the pay of non-Ministerial MPs to the national median wage and place a cap on all other MP salaries to no more than three times that of the national median wage. Overall this should result in a reduced wage bill for all MPs by reducing the total cost of Cabinet positions. All MPs (including Ministers) should be full-time MPs also. Using the 2012 Labour Market Indicators<sup>24</sup>, this would mean a non-Ministerial MP wage of \$59,364 and a maximum Ministerial wage (including the Opposition Leader) of \$178,092 (the 'regular MP' wage being included in this, not additional to it). Assuming the Premier, Finance Minister and Attorney

<sup>21</sup> State of the Environment Report, 2005, p.177.

<sup>22</sup> See, for example, Miron, J (2003) *The Effect of Marijuana Decriminalisation on the budgets of Massachusetts Governments, With a Discussion of Decriminalisation's Effect on Marijuana Use*, which found decriminalisation of marijuana to 'produce an annual savings in law enforcement resources of approximately £24.3 million' and that the 'evidence provides no indication that decriminalisation leads to measurable increase in marijuana use'. Online at: [http://proxy.baremetal.com/www.drugsense.org/initiatives/ny/miron\\_nov03.pdf](http://proxy.baremetal.com/www.drugsense.org/initiatives/ny/miron_nov03.pdf) See also Allen, L, Trace, M & Klein, A (2004) *Decriminalisation of drugs in Portugal: a current overview*, which found that the decriminalisation of all drugs (for personal use) in Portugal diverted tens of thousands 'from the criminal justice system in Portugal over the last 3 years, producing significant resource savings in the court and prison systems' while the 'introduction of this new approach has not led to significant increase in drug use in Portugal, or of drug users moving to Portugal because of the perceived lower risk of imprisonment'. Online at: [http://antidrug.health.am/eng/lib\\_eng/BeckleyFoundation\\_BriefingPaper\\_06.pdf](http://antidrug.health.am/eng/lib_eng/BeckleyFoundation_BriefingPaper_06.pdf)

<sup>23</sup> See, for example, 2013 *Measuring Up – The Medical Profession's Prescription for the Nation's Obesity Crisis*, a report from the UK's Academy of Medical Royal Colleges, advocating for the implementation of a junk-food tax (in the form of taxing fizzy drinks), online at: [http://www.aomrc.org.uk/publications/reports-a-guidance/doc\\_download/9673-measuring-up.html](http://www.aomrc.org.uk/publications/reports-a-guidance/doc_download/9673-measuring-up.html) See also, Sacks, G, Veerman, JL, Moodie, M & Swinburn, B (2010) 'Traffic-light' nutrition labelling and 'junk-food' tax: A modelled comparison of cost-effectiveness for obesity prevention, *International Journal of Obesity*, 1(9), which found the junk-food tax policy, in Australia, to 'offer excellent 'value for money' as obesity prevention measures'.

<sup>24</sup> Found on Bernews at [http://cloudfront.bernews.com/wp-content/uploads/2012/05/3677\\_LMI\\_2012\\_Proof2.pdf](http://cloudfront.bernews.com/wp-content/uploads/2012/05/3677_LMI_2012_Proof2.pdf)



General all receive the maximum wage, with all other Minister (including the Opposition Leader) receiving a wage of \$118,728, this leads to a total parliamentary salary bill (using the existing Cabinet, excluding Minister without Portfolio) of \$3,027,564 pa, a saving of \$572,436 pa<sup>25</sup>. The exact configuration may be altered (including a statutory cap on the size of Cabinet), with the minimum and maximum wages being fixed; different configurations may result in even greater savings. Having MPs and Ministers working in a full-time capacity should lead to a greater 'value for money' of MPs and Ministers productivity, allowing for more effective representation and legislation.

- 30) Revisit the Memorandum of Understanding concerning Government workers wages, currently set at a 4.6% flat rate for all Government workers. Replace with a progressive rate, with those earning \$50K and below returning to their pre-4.6% pay, those earning between \$51k-75k reducing their salaries by 2.5%, those earning between \$76-110k reducing their salaries by 5%, and those earning in excess of \$111k reducing their wages by 10%. In addition, restrict future increases to a similar wage-band structure.
- 31) Shift to a process based on participatory budgeting (PB), as successfully implemented in Porto Alegre, Brazil<sup>26</sup> and other jurisdictions (including Chicago, USA<sup>27</sup> and Guelph, Canada<sup>28</sup>). To quote the definition used by the English Department for Communities and Local Government, PB *'directly involves local people in making decisions on the spending and priorities for a defined public budget. PB processes can be defined by geographical area (whether that's a neighbourhood or larger) or by theme. This means engaging residents and community groups representative of all parts of the community to discuss and vote on spending priorities, make spending proposals, and vote on them, as well [as] giving local people a role in the scrutiny and monitoring of the process and results to inform subsequent PB decisions on an annual or repeatable basis'*<sup>29</sup>. According to the World Bank, PB *'effectively increases transparency in fiscal policy and public expenditure management, reducing scope for clientelistic practices, elite capture, and corruption, thereby enhancing the government's credibility and the citizens' trust. PB can also improve service delivery by linking needs identification, investment planning, tax systems and project management'*<sup>30</sup>. Ultimately, the introduction of PB, even in a pilot scheme, could lead to greater government accountability, greater democracy and potential cost-savings for Bermuda.

<sup>25</sup> Based on the 2013 cost of \$3.6million cited by the Royal Gazette on March 14<sup>th</sup>, 2013, online at:

<http://www.royalgazette.com/article/20130314/NEWS/703149945>

<sup>26</sup> See the UN-Habitat's 2005 report on participatory budgeting, *72 Frequently Asked Questions about Participatory Budgeting*, online at: <http://www.internationalbudget.org/themes/PB/72QuestionsaboutPB.pdf>

<sup>27</sup> See Lerner, J & Wade, M (2010) *Chicago's \$1.3 Million Experiment in Democracy*, Yes! Magazine.

<http://www.yesmagazine.org/people-power/chicagos-1.3-million-experiment-in-democracy>

<sup>28</sup> See Pinnington, E, Lerner, J & Schugurensky, D (2009) *Participatory Budgeting in North America: The Case of Guelph, Canada*, Journal of Public Budgeting, Accounting & Financial Management, 21(3), online at:

[http://legacy.oise.utoronto.ca/research/edu20/documents/PB\\_Guelph\\_PLS.pdf](http://legacy.oise.utoronto.ca/research/edu20/documents/PB_Guelph_PLS.pdf)

<sup>29</sup> See the following website for further useful information regarding participatory budgeting in a UK context:

<http://www.participatorybudgeting.org.uk/about>

<sup>30</sup> See online at:

<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALDEVELOPMENT/EXTPCENG/0,,contentMDK:20509380~pagePK:148956~piPK:216618~theSitePK:410306,00.html>