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FACULTY OF THE BUILT ENVIRONMENT

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## The role of Transition Initiatives in local authorities' responsiveness to peak oil: A case study of Somerset County Council.

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Being a Dissertation submitted to the faculty of The Built Environment as part of the requirements for the award of the MSc International Planning at University College London: I declare that this Dissertation is entirely my own work and that ideas, data and images, as well as direct quotations, drawn from elsewhere are identified and referenced.

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## Abbreviations

SCC	Somerset County Council
ΤΑ	Transition Authority
TI(s)	Transition Initiative(s)

## Abstract

It is argued that the world is fast approaching a peak in world oil production, leaving oil dependent countries increasingly vulnerable. National governments are slow to address the issue and as a result, the movement known as the 'Transition Movement' has begun to address the issue at a grassroots level, by relocalising economies and rebuilding local resilience. Local governments in Britain are slowly beginning to embrace the concept of Transition. In July 2008, Somerset County Council passed a motion acknowledging the work of the Transition Movement, pledging to support the Movement while also committing itself to addressing its own reliance on 'fuel oil'.

This dissertation seeks to establish; the actual and perceived barriers to the successful implementation of the resolution and the role that Transition Initiatives have played in the council's decision to address peak oil. It also seeks to evaluate the way in which the resolution is framed by critically assessing the success of the Somerset resolution to date, as well as identifying the actual and perceived barriers to the implementation of the resolution. Actual and perceived barriers identified include; lack of understanding, lack of resources, lack of enthusiasm about Transition Somerset and the Conservative administration. The dissertation concludes that Transition Initiatives did not play an active role in the passing of the motion but that they have played a major role in the implementation and progression of the resolution. Tangible successes to date are limited but the structure of the resolution lays the foundations for future success. The council must take care not to be over reliant on the work of Transition Initiatives in order to label itself a Transition Authority; change must also happen within the council.

## **1.0 Introduction**

Since oil was first extracted in 1859, society has grown accustomed to the fact that there has been more energy available each year and global economic development has become dependent on the availability of cheap fossil fuels. The availability of cheap oil and gas has given rise to an economic system that assumes that growth is a necessity (Heinberg, 2005: 168). Fossil fuels, "the lifeblood of the global economy" (Kunstler, 2005 cited in Hopkins, 2006a: 9) are however finite resources, leaving societies that are based on the availability of cheap fossil fuels such as Britain, extremely vulnerable (Hopkins, 2006a: 9). It is argued that global petroleum production has already reached or will soon reach a peak, after which production will enter into terminal decline as oil becomes increasingly difficult and more expensive to extract<sup>1</sup>. Peak oil raises a number of issues about future energy supply and demand and about how society will adapt to a decline in energy resources (ibid.).

The British government appears to acknowledge the concept of peak oil (despite not having made a formal statement on the issue), but does not anticipate that global oil production will peak before 2020 (Monbiot, 2009). National government's recently published national strategy for climate and energy, *'The UK Low Carbon Transition Plan'*, appears to assume that this transition to a low carbon, less oil dependent society will be a gentle process that does not require any planning to reduce energy demand or to relocalise<sup>2</sup>. British local authorities are however increasingly beginning to find that their communities are already preparing for peak oil and energy descent through grassroots movements such as the Transition Movement (ODAC, 2009: 31). This grassroots response has come about as a result of a lack of government activity on the issue.

The Transition Movement aims to inspire local communities to take their future into their own hands and prepare for peak oil (Hopkins, 2008a: 134). The Transition Movement is based on four key assumptions:

1. That life with dramatically lower energy consumption is inevitable, and that it's better to plan for it than to be taken by surprise.

It is anticipated that gas will peak soon after. Laherrere puts gas peak at 2025 (Strahan, 2007: 202).

<sup>&</sup>lt;sup>2</sup> "Relocalisation is a strategy to build societies based on the local production of food, energy and goods and the local development of currency, governance and culture." (Relocalization.net, 2009).

- 2. That our settlements and communities presently lack the resilience to enable them to weather the severe energy shocks that will accompany peak oil.
- 3. That we have to act collectively, and we have to act now.
- 4. That by unleashing the collective genius of those around us to creatively and proactively design our energy descent, we can build ways of living that are more connected, more enriching and that recognize the biological limits of our planet (ibid.).

One of the core objectives of the Transition Movement involves building bridges to local government, as it is believed that the issue of peak oil must be addressed from the topdown as well as the bottom-up (Hopkins, 2008a: 75).

In July 2008, under Liberal Democrat leadership, Somerset County Council (SCC) passed a resolution to became Britain's first 'Transition Authority' (TA). This resolution is the first of its kind in Britain and has led the way for Transition at local authority level<sup>3</sup> in Britain. SCC's adoption of the resolution demonstrates that local government is beginning to lead the way for national government in preparing for peak oil through engaging with the Transition Initiatives<sup>4</sup> (TIs).

## 1.1 Aim and Objectives

The aim of this dissertation is to further our understanding of the role that TIs can play in helping local authorities to address the challenges presented by peak oil. SCC's approach to addressing peak oil differs from that of local authorities in the US, as the main focus of the resolution is on the work that is being carried out by TIs in Somerset rather than on the internal workings of the council. This dissertation seeks to evaluate this approach by critically assessing the actual and potential success of the Somerset resolution to date, as well as identifying the actual and perceived barriers to the implementation of the resolution as outlined by council officers, council members and TI members.

<sup>&</sup>lt;sup>3</sup> Leicestershire County Council and Moray District Council have since passed Transition Motions.

<sup>&</sup>lt;sup>4</sup> Transition Initiatives are communities that are working together to address the issues of peak oil and climate change by planning the communities "energy descent" and rebuilding local resilience.

The following objectives have been set out in order to achieve the aim of the dissertation:

- **1.** Examine the concept of peak oil and investigate the British government's response to the challenges presented by peak oil.
- **2.** Examine the movement known as the Transition Movement and investigate its origins and applicability in the UK as well as its potential for working with local government in preparing for peak oil.
- **3.** Identify examples of 'Transition Initiatives' in the Somerset area and assess the relationship between local government and the initiatives.
- **4.** Investigate Somerset County Council's proposition as the UK's first 'Transition Authority' and investigate the role played by Transition Initiatives in the adoption of the resolution and its subsequent implementation.
- **5.** Critically assess the success of the Somerset County Council's 'Transition Authority' resolution to date as well as identifying the actual and perceived barriers to the implementation of the resolution as outlined by council officers, council members and TI members.
- **6.** Draw conclusions and pose key recommendations for the successful implementation of the Transition concept at the local authority level.

The paper will begin with a literature review in order to set the context within which Somerset County Council decided to adopt the resolution and introduce approaches to peak oil taken by other international cities. This will be followed by a methodology section outlining the methodological approach to the empirical research undertaken. Chapter four consists of an analysis of the data gleaned from the open-ended interview process. The results of the analysis have been used to inform the conclusions and recommendations made in the final chapters.

## 2.0 Literature Review

This literature review seeks to set the context within which SCC decided to adopt the TA resolution. Of the six research objectives outlined above, objectives one and two will be met by way of literature review.

## 2.1 Peak Oil Theory

Peak oil theory was first devised by geophysicist Dr. Marion King Hubbert. Peak oil is the point in time at which the maximum global petroleum production rate is reached, after which the rate of production enters into decline (Tsoskounoglou et al.,2008). Oil production tends towards a bell shaped curve and the "maximum of production is reached when about 50% of the ultimate production volume has been extracted" (Tsoskounoglou et al.,2008: 3802). Although half of the world's oil will remain, production will become increasingly more difficult and more expensive following the peak. Hubbert correctly predicted the peak in US oil production and also predicted that world oil production would peak around 1995<sup>5</sup> (see figure 1 below).



**Figure 1.** Ultimate world crude-oil production based upon initial reserves of 1250 billion barrels. (Hubbert, 1956)

<sup>&</sup>lt;sup>5</sup> Savinar (2004: 6) argues that Hubbert's prediction has been delayed by about 10 years as a result of the 1970's oil crisis.

### 2.1.1 Debates surrounding peak oil

As highlighted in the following literature, estimates of remaining world oil reserves are hugely divergent, and as a result the probability and timing of peak oil is also largely debated (see table 1. below). It is generally acknowledged that new discoveries are becoming rarer and that each new barrel is becoming more expensive to produce (Tsoskounoglou et al., 2008: 3798). Opinions diverge on the issue of whether new technology and increased prices will affect supply (ibid.).

Projected Date of Peak	Source of Projection	Background	
2006- 2007	Bakhitari <sup>6</sup>	Iranian Oil Executive	
2007- 2009	Simmons <sup>7</sup>	Investment banker	
After 2007	Skrebowski <sup>8</sup>	Petroleum journal Editor	
Before 2009	Deffeyes <sup>9</sup>	Oil company geologist (ret.)	
Before 2010	Goodstein <sup>10</sup>	Vice Provost, Cal Tech	
Around 2010	Campbell <sup>11</sup>	Oil company geologist (ret.)	
After 2010	World Energy Council <sup>12</sup>	Non-Government Org.	
2010- 2020	Laeherre <sup>13</sup>	Oil company geologist (ret.)	
2016	EIA <sup>14</sup>	DOE analysis/ information	
After 2020	CERA <sup>15</sup>	Energy consultants	
2025 or later	Shell <sup>16</sup>	Major oil company	
No visible peak	Lynch <sup>17</sup>	Energy economist	

 Table 1. Varying projections of the date of peak in world oil production (Hirsch, 2005)

Bakhtiari, A.M.S. (2003) "World Oil Production Capacity Model Suggests Output Peak by 2006-07." OGJ. April 26, 2004.

<sup>&</sup>lt;sup>7</sup> Simmons, M.R. ASPO Workshop. May 26.

 <sup>&</sup>lt;sup>8</sup> Skrebowski, C. (2004) "Oil Field Mega Projects - 2004." *Petroleum Review*. January.

<sup>&</sup>lt;sup>9</sup> Deffeves, K.S. (2003) Hubbert's Peak-The Impending World Oil Shortage. Princeton University Press.

<sup>&</sup>lt;sup>10</sup> Goodstein, D. (2004) *Out of Gas – The End of the Age of Oil*. W.W. Norton.

<sup>&</sup>lt;sup>11</sup> Campbell, C.J. (2003) "Industry Urged to Watch for Regular Oil Production Peaks, Depletion Signals." OGJ. July 14,.

<sup>&</sup>lt;sup>12</sup> Drivers of the Energy Scene. World Energy Council. (2003).

<sup>&</sup>lt;sup>13</sup> Laherrere, J. (2003) Seminar Center of Energy Conversion. Zurich. May 7.

<sup>&</sup>lt;sup>14</sup> DOE EIA. (2000) "Long Term World Oil Supply." April 18.

<sup>&</sup>lt;sup>15</sup> Jackson, P. et al. (2004) "Triple Witching Hour for Oil Arrives Early in 2004 – But, As Yet, No Real Witches." CERA

Alert. April 7.9
 <sup>16</sup> Davis, G. (2003) "Meeting Future Energy Needs." *The Bridge*. National Academies Press. Summer.
 <sup>17</sup> Lynch, M.C. (2003) "Petroleum Resources Pessimism Debunked in Hubbert Model and Hubbert Modelers' Assessment." Oil and Gas Journal, July 14.

A number of petroleum geologists (Campbell & Laherrere (1998), Deffeyes (2003), Skrebowski (2004)) have dedicated much of their careers to developing Hubbert's works and ideas (Hopkins, 2006: 10). This group "is concerned that the ultimate resource base, and the speed with which we can extract it, is too low for oil production to continue growing for more than a few years" (Mills, 2008: 12). Their argument is based on the assumption that oil and gas are finite resources and as a result production cannot grow despite increased investment in new extraction technologies. Demand for these resources is not limited, and as a result, they argue that the arrival of peak oil will lead to economic chaos (Mills, 2008: 14). A number of writers from outside the oil industry (Heinberg (2003), Kunstler (2005), Savinar (2004)) concur with this assertion and foresee "an apocalyptic systems collapse" (Strahan, 2007: 252) unless governments begin to take immediate and drastic action to avert such a crisis. Although there is merit to the arguments of 'peakers' it can be argued that "there is a good deal of overstatement in their rhetoric" (Newman et al, 2009: 39).

Critics of Hubbert (Lomborg (2001), Lynch (2003), Mills (2008)) disagree with this view as they believe the peak oil argument to be flawed. Instead they "hold that price will bring supply and demand into balance in a way that does not result in intolerable economic damage, and they view the ultimate resource base much more favorably" (Mills, 2008: 14) than the "Hubbertarians"<sup>18</sup> who believe it is much smaller than actually reported. As oil becomes scarcer and more expensive, they believe its increased price will encourage the advancement of technology to develop alternatives (Hopkins, 2006a: 15).

Tsoskounoglou et al. (2008: 3805) argue that in order to avoid serious turmoil in the global economy, mitigation measures need to be put in place well before we reach Peak Oil. This, they argue implies both supply- and demand-side measures. Hopkins (2008a) is skeptical of the ability of alternatives such as nuclear and solar to fill the supply side gap left by rising demand and instead argues that a planned 'energy descent'<sup>19</sup> is the only way to successfully bridge the gap to a less oil dependent society.

<sup>&</sup>lt;sup>18</sup> Proponents of Hubbert (Deffeyes, 2005: 28)

<sup>&</sup>lt;sup>19</sup> Energy descent refers to the post-peak oil transitional phase, where by society moves from ascending energy consumption patterns to a descending energy consumption pattern (Odum, 2001)

### 2.2 "Energy Descent", the National perspective

The British government has not yet formally acknowledged the concept of peak oil<sup>20</sup>, and as a result it has made no effort to determine the date of peak oil<sup>21</sup>. Newman et al. comment that it is not in the interests of government to disturb people and therefore they avoid the issue (Newman et al., 2009: 21). The Hirsch Report (2005: 5) however, places emphasis on the importance of government intervention as "the economic and social implications of oil peaking would otherwise be chaotic".

The government's recent national strategy for climate change and energy, *'The UK Low Carbon Transition Plan'*, sets forth an ambitious carbon reduction strategy in order to deliver emission cuts of 18% on 2008 levels by 2020. (Department of Energy & Climate Change, 2009: 11) The strategy does not refer directly to the concept of peak oil or gas, but indirectly refers to it by mentioning Britain's dwindling North Sea oil reserves (see figures 2. & 3.).



**Figure 2.** UK Oil Production, Consumption and Imports (Source: The Oil Drum: Europe, 2009).

<sup>&</sup>lt;sup>20</sup> Former energy minister Malcolm Wicks acknowledged the concept of peak oil in 2006 (Strahan, 2007).

<sup>&</sup>lt;sup>21</sup> Following a Freedom of Information request by journalist George Monbiot to the Department of Business in 2008, questioning the contingency plans the government has made for the potential peak in global oil production between now and 2020, the government responded by saying that: "With sufficient investment, the government does not believe that global oil production will peak between now and 2020, and consequently we do not have any contingency plans specific to a peak in oil production" (Monbiot, 2009).



**Figure 3.** UK Natural Gas Production, Consumption and Imports (Source: The Oil Drum: Europe, 2009).

The strategy cautions that by sticking with a high carbon economy and relying on imported oil, Britain would "be subject to price fluctuations and disturbances in the world market" (Department of Energy & Climate Change, 2009: 30). In order to avoid this scenario, Britain must "make the necessary transition to low carbon, right for climate change, energy security and jobs" (Department of Energy & Climate Change, 2009: foreward). However, the strategy seems to assume that this transition to a low carbon less oil dependent society will be a gentle process that does not require any planning for "energy descent", relocalization or resilience building (Hopkins, 2009b).

The strategy fails to make a strong enough connection between the availability of cheap oil and economic development and it assumes that the upward trend in oil prices can be curbed by substituting oil and gas with green technologies and conserving the use of energy. However, given the rising demand for energy and the fact that green technologies are no where near close to supplying enough energy to maintain the economy at its current rate<sup>22</sup> (BWEA: 2009), and with peak oil expected within the next few years, there is little evidence that the government has begun to plan for "energy descent" as an integral part of its planning for a low carbon society.

Should the projections of the "Hubbertarians" be correct, planning for "energy descent" and relocalisation will be urgently required. The government's national carbon reduction

<sup>&</sup>lt;sup>22</sup> "The English regions are very unlikely to meet their onshore renewable energy targets for 2010 on time, as set out within adopted Regional Spatial Strategies (RSS), with the sole exception of London, which represents only one-fiftieth (2.2%) of the all-England target" (BWEA, 2009).

strategy, although ambitious, has however failed to address these issues. It would appear that the necessity to address these issues is increasingly being recognised at the local government level through its engagement with TIs rather than at the national level. While some changes need to be driven at a national government level, Hopkins suggests that " much of the momentum and pressure, as well as the diversity of projects and initiatives that need sanction or support from government, can come from the local level" (Hopkins, 2008a: 43).

## 2.3 Community Response to the Looming Oil Crisis

Faced with the looming oil crisis people have begun to use scenario planning<sup>23</sup> as a tool for assessing post-peak trends. (Hopkins, 2006a: 19) Hopkins has succinctly collated these scenarios in the model below.



Figure 4. Spectrum of post-peak scenarios (Hopkins, 2006a: 22).

<sup>&</sup>lt;sup>23</sup> Gallopin (2002, 365 cited in Hopkins, 2006: 19) is of the opinion that "unlike projections and forecasts, which tend to be more quantitative and more limited in their assumptions, scenarios are logical narratives dealing with possibly far-reaching changes".

Of the possibilities outlined above, Hopkins sees the most realistic scenario for descending the peak as being "somewhere between Heinberg's (2004) 'Building Lifeboats<sup>24</sup>' scenario, and his 'Powerdown<sup>25</sup>' scenario" (Hopkins, 2006a: 24). That is, that local communities will begin to self-organise to increase self-sufficiency and that national government will also move to address the challenges faced. Essentially the challenges faced must be addressed from the bottom up as well as from the top down (ibid.) and it is on this basis that the Transition Movement seeks to begin the relocalisation process and to rebuild the resilience of local communities from the grassroots.

#### 2.3.1 A Seed is Sown- The Transition Movement

In 2005, Rob Hopkins, a permaculture lecturer in Kinsale Co. Cork, and his students set about formulating an Energy Descent Action Plan (hereafter EDAP) for the town of Kinsale. The exercise of creating an EDAP involved exploring "how the town of Kinsale might make the Transition to a lower-energy future" (Hopkins, 2008a: 123). The Kinsale EDAP set out a year-by-year plan as to how Kinsale would reduce its fossil fuel dependence while at the same time building and strengthening the town's resilience to the challenges that climate change and peak oil would present. An EDAP has been defined as a plan that "sets out a vision of a powered-down, resilient<sup>26</sup>, relocalised future, and then backcasts<sup>27</sup>, in a series of practical steps, creating a map for getting from here to there." (Hopkins, 2008a: 172)

### 2.3.2 The growth of the Transition Movement

From the original EDAP grew the concept for Transition Towns / Initatives<sup>28</sup>. The aim of Transition Initiatives (hereafter TIs) is "to act as catalysts for a community to explore and

<sup>&</sup>lt;sup>24</sup> Life Boat Scenario: Building lifeboats "begins with the assumption that industrial civilization cannot be salvaged in anything like its present form' and is a process of building community solidarity, creating a localized infrastructure and preserving and enhancing the essentials of life" (Hopkins, 2008a: 27).

<sup>&</sup>lt;sup>25</sup> A societal effort towards self-limitation in order to reduce per capita resources usage. (Heinberg, 2004).

<sup>&</sup>lt;sup>26</sup> The concept of resilience refers to the ability of ecosystems to withstand shocks and adapt to change in order to preserve their functioning.

<sup>&</sup>lt;sup>27</sup> Backcasting involves defining a desirable future and from that point working backwards to set out policies and means by which that future can be realised (Quist & Vergragt, 2006).

<sup>&</sup>lt;sup>28</sup> Originally areas that embraced the Transition Movement were referred to as Transition Towns due to the fact that most of the areas involved were small towns. However, as the Transition Movement has since spread to cities, villages and

come up with its own answers" (Hopkins: 2008: 134) to the challenges presented by peak oil and climate change. TIs are based on four key assumptions outlined in the introduction to this dissertation.

Recent years have witnessed the rapid growth of an international network of TIs, with 134 worldwide<sup>29</sup> (Seyfang, 2009). It would appear that the popularity of the Transition Movement is largely based on the fact that it provides people with the tools to take positive action to prepare for peak oil and climate change and its ability to unite people at the community level. When people work together at the community level their efforts become more "visible significant and effective" (Griffiths: 2009).

#### **2.3.3 Criticisms of the Transition Movement**

Criticisms have been leveled at the Transition Movement on a number of different fronts. (Mills, (2008); Trapese, (2008); Andrews, (2008)) The main criticisms appear to relate to; its non-confrontational approach to change, its a-political stance, as well as the danger of co-optation it faces through its attempts to engage with government on a national and local level.

The critique of the Transition Movement, *The Rocky Road to Transition* from the popular education collective, Trapese, analyses TIs and how they contribute to social change. One of Trapese's central criticisms of the Movement is its depoliticized, non-confrontational<sup>30</sup> stance. (Chatterton & Cutler as part of the Trapese Collective, 2008: 6) Trapese argues that in order for TIs to secure their best efforts at local sustainability, they must not cower away from challenging "government policies, which try to maintain the economic and political, 'business as usual' scenarios" (Chatterton & Cutler, 2008: 7). In the eyes of the Trapese Collective, "meaningful social change comes through political organising, rupture and struggle and a lot of mobilising at the local level" (Chatterton & Cutler, 2008: 19).

islands, leaving the term Transition Towns somewhat redundant. These places of Transition can now be more accurately described as Transition Initiatives.

<sup>&</sup>lt;sup>29</sup> The vast majority are located throughout the UK, Ireland, the US, Australia and New Zealand.

<sup>&</sup>lt;sup>30</sup> In light of Diani's (1992a; 2003a; 2004a; Diani and Bison 2004 cited in Della Porta & Diani, 2006.) definition of a social movement, it is believed by the author that the Transition Movement may not be classified as such due to its lack of involvement "in conflictual relations with clearly identified opponents" (Della Porta & Diani, 2006: 20).

The Trapese collective is a left wing activist group and so it is unsurprising that they are critical of the Transition Movements non-confrontational approach. The authors may have overlooked the fact that it is not the intention of TIs to be confrontational but instead proactive (Hopkins, 2008b). Surmounting the challenges presented by peak oil and climate change will require people to work together rather than working against each other (ibid.). Unlike other environmental movements, activism is not the aim of the Transition Movement, but it is envisioned that activists groups and TIs can work side by side. (ibid.)

Another principle of TIs strongly criticized by Trapese is its co-operation with local councils. (Chatterton & Cutler, 2008: 27) Trapese fears that "it is in governments interest to recuperate and co-opt this kind of initiative as a way to deflect criticisms and to satisfy those calling for real change" (Chatterton & Cutler, 2008: 27) and that it is in the interest of Transition Movements not to engage with government as politics will not bring about the changes needed. Hopkins has countered this argument by stating that the collective clearly "haven't quite grasped the scale of the change that peak oil and climate change will initiate' and that cooperation between all levels of society is necessary in order to overcome the challenges presented" (Hopkins, 2008b).

Mills is also critical of the movement. Unlike the Trapese collective who are broadly supportive of the aims of the Transition Movement, Mills views the concept of peak oil as being fundamentally flawed and thus disagrees with the basic assumptions on which the Transition Movement is built. (Mills, 2008: 241) Andrews' criticism is levelled at the movement's "failure to locate the movement within its social, economic, and historical perspective, and therefore [a failure] to find an answer to many of its basic questions" (Andrews, 2008: 59). She sees the Movement as a typically white, middle-class environmental movement, who's members are educated, and secure in their jobs and can thus "begin to think about other things outside of their daily survival" (Andrews, 2008). Affluence she argues means oil abundance, "and the "post-materialists" that this affluence breeds are the middle class people who protest against it" (Andrews, 2008: 59).

## 2.4 Building resilience with the help of local government

#### 2.4.1 Building bridges to local government

In order to successfully navigate the peak in oil production, it would appear that a future with more localized, resilient communities is inevitable. However, Transition towards greater resiliency requires all strands of the community to be involved - government, business, professional practitioners, community groups, and individual households (Newman et al., 2009: 112). As a result, TIs must reach out to all members of the community and ensure that "a positive and productive relationship is formed with the local authority, as little progress will be made without having them on board" (Hopkins, 2008a: 170). The role of the local authorities in this process is "to support, not to drive it" (Hopkins, 2008a: 144).

#### 2.4.2 Why local government should get involved

Lerch outlines a number of reasons why local authorities should respond to energy and climate uncertainty rather than waiting for national government to take action (Lerch, 2007: 27). These include the argument that "higher levels of government cannot see the details that local governments can" (ibid.) and local governments are thus in a better position to understand the complexities of their area<sup>31</sup>. Local government he argues is closer to the ground, "and therefore has the flexibility, capacity and motivation to address issues in ways that larger central governments organisations cannot" (ibid.).

At present there is a dearth of government publications or guidelines for local government on how to address the issue of peak oil. With the growing awareness of the need for local government to engage in preparing for peak oil, a number of guidebooks have recently been published by non-governmental bodies that provide guidelines for local government on how to address the issue. Existing local government initiatives in

<sup>&</sup>lt;sup>31</sup> "In the US, 967 mayors have joined The U.S. Conference of Mayors' Climate Protection Agreement, vowing to reduce carbon emissions in their cities below 1990 levels, in line with the Kyoto Protocol. Under the Agreement, participating cities commit to take following three actions:

<sup>-</sup> Strive to meet or beat the Kyoto Protocol targets in their own communities, through actions ranging from anti-sprawl land-use policies to urban forest restoration projects to public information campaigns;

<sup>-</sup> Urge their state governments, and the federal government, to enact policies and programs to meet or beat the greenhouse gas emission reduction target suggested for the United States in the Kyoto Protocol -- 7% reduction from 1990 levels by 2012; and

<sup>-</sup> Urge the U.S. Congress to pass the bipartisan greenhouse gas reduction legislation, which would establish a national emission trading system" (The United States Conference of Mayors, 2009).

other countries such as US and Australia also provide some insight into how to go about preparing and implementing a strategic plan (see Boxes 1.& 2 below).

Box. 1 Brisbane

#### Brisbane, Queensland, Australia.

Brisbane City Council has developed a peak oil and climate change strategy following the work of a Climate Change and Energy Taskforce convened to advise Council on preparing the city for climate change and peak oil. The taskforce was made up of business, university and NGO representatives who carried out a number of community consultations before publishing the report (Newman et al., 2009: 113). The 'Final Report – A Call for Action' represents the work of the Taskforce and its recommendations to Council.

The report sets a goal of zero net greenhouse gas emissions by 2050 (with households being carbon neutral by 2020) The report includes thirty-one recommendations across eight strategy areas that aim to meet the target set out above (ibid.). The eight strategy areas addressed include leadership and partnering, decision making, communication, planning, sustainable transport, preparedness for change, diversification of natural resources and research (ibid.).

The council has not passed a peak oil resolution but the report is intended as a first step in the process of identifying the possible responses to climate change and peak oil on the city of Brisbane (Maunsell Aecom, 2007). It provides the council with a platform to consider and develop policy and establish appropriate actions. Community involvement is seen as crucial to the future success of any action on peak oil or climate change. The report is seen to act as "a vehicle to foster public debate and education" (ibid), which is an essential part of determining and setting policies and strategies that address peak oil and climate change. Box. 2 Portland

#### Portland City, Oregan, US

Portland City's resolution places great emphasis on the role of the council in addressing peak oil as it believes that leadership is necessary to address the issues at stake. Although there is no mention of Transition Initiatives or any other social movement or citizens group in the resolution, a citizens group known as 'Portland Peak Oil' was instrumental in drafting the resolution and has worked closely with the council throughout (Lerch, 2007: 41). Much of the success of Portland city's resolution has been attributed to the council's collaboration with key community organisations (ibid.).

Portland's Peak Oil resolution is innovative in that it sets definite targets for the council (the City of Portland has a goal to reduce oil and natural gas use in Portland by 50% by 2030) and in that it pledges to establish a peak oil task force to assess Portland's exposure to diminishing supplies of oil and natural gas and make recommendations to address vulnerabilities (The task force was established by a separate resolution.). The task force's final report and recommendations were accepted in March 2007. The task force was lead and staffed by the Offices of Sustainable Development and will coordinate with the Office of Transportation, the Bureau of Planning and other applicable bureaus. It included 10 members representing a broad range of community and business interests and in this ensured involvement from all segments of the community. (Copies of Portland City's Peak Oil Resolutions can be found in Appendix 2.)

#### 2.4.3 Guidebooks

The US based Post Carbon Institute has published a guidebook on peak oil and climate change for local governments entitled *Post Carbon Cities: Planning for Energy and Climate Uncertainty.* This guidebook provides a comprehensive overview of the challenges facing local government as well as strategies for overcoming these challenges. The main message of the guidebook reflects that of the Transition Movement, that is, in order to tackle global warming and to manage the Transition to a post peak society successfully, communities must 'reduce consumption and produce locally'. The final chapter of the guidebook provides local governments with five extremely valuable principles that will help them make the smooth transition (see Chapter 3.3).

The Local Government Association<sup>32</sup> recently published a report entitled *Volatile Times: Transport Climate Change and the Price of Oil* (2009). The report came about as a result of the growing recognition that councils should be taking the lead in the national effort to tackle climate change while at the same time dealing with the impacts of oil price volatility. The report makes recommendations to councils about how they can adapt their own activities and help householders and businesses to do the same in order to make a smooth Transition. It is extremely noteworthy that the report refers to the Transition Movement and how TIs can help support the local authority in dealing with the challenges presented by peak oil and climate change. The reference to the Transition Movement indicates an acknowledgement of the increasing relevance of a grassroots led response to the challenges presented by peak oil and climate change. Although this report does provide some valuable guidelines for local governments on how to navigate peak oil it is still rather basic in comparison with The Post Carbon Cities Handbook something that perhaps reflects the recent nature of British government awareness of the issue.

The report *Preparing for Peak Oil: local authorities and the energy crisis*<sup>33</sup> again refers to the Transition Movement and emphasises how it is already preparing for peak oil, thus implying that local authorities should seek to work alongside these groups rather than starting from scratch. The report provides a summary of local authority peak oil initiatives

<sup>&</sup>lt;sup>32</sup> A voluntary lobbying organisation, acting on behalf of the local government sector.

<sup>&</sup>lt;sup>33</sup> Published by the Oil Depletion Analysis Centre (ODAC).

in order to inform British local authorities of best practices at home and abroad (ODAC, 2008: 1) and to suggest actions that they can take. *Preparing for Peak Oil* provides very similar guidance to that provided by *Post Carbon Cities: Planning for Energy and Climate Uncertainty* guidebook. The only difference between the texts is the contexts they refer to, as *Preparing for Peak Oil* addresses the British context rather than the North American context. The book also adapts the five key principles from the *Post Carbon Cities* guidebook referred to above.

### 2.5 Issues and Review of Related Literature

As has been indicated by the literature above, the date and timing of a peak in world oil production is a highly contentious issue, but on the balance of the arguments represented by Hubbert's proponents and opponents, it appears that a peak in world oil production is imminent and that it requires recognition by national government and a response from all tiers of society.

This review of literature indicates the importance of local government involvement in addressing the issue, and highlights the importance of local government liaising with TIs and other grassroots movements in order to do so. The lack of British government publications on the issue indicates that planning for peak oil has not yet been prioritized by national government. As a result local governments are very much leading the way in developing more resilient sustainable towns and cities through their engagement with TIs. As of yet little academic literature exists on the phenomena of the 'Transition Authority' or on the case of SCC TA. In order to arrive at a deeper understanding of TAs and the role that TIs play in helping local authorities become TAs, empirical research will be carried out into the case of SCC.

## 3.0 Methodology

The research approach chosen for this dissertation is a qualitative approach grounded in the empirical study of the role TIs have played in Somerset's decision to address peak oil.

## 3.1 Methods

As the literature has demonstrated, British local governments are only beginning to address the challenges presented by peak oil. As a result no research has been conducted into SCC's TA resolution or into any other British local authority's attempts to address the issue of peak oil. In light of this it was felt that there was a gap in the literature which required the undertaking of empirical research. Valuable aspects of this research relate to objectives three, four, five and six.

By undertaking a case study this research addresses and develops those objectives. The case study was completed by carrying out qualitative open-ended interviews in order to obtain a comprehensive assessment of the role that TIs have played in SCC's responsiveness to peak oil and in order to identify the actual and perceived barriers to the implementation of the resolution.

## 3.2 Introduction to Case Study

In July 2008, under Liberal Democrat leadership, SCC led the way in addressing peak oil at local authority level in Britain by passing a motion declaring itself Britain's first 'Transition Authority'. The motion was passed unanimously by the council and commits it to supporting TIs in Somerset as well as reviewing its own budgets and services in order to achieve a reduction in dependence on fuel oil.

## 3.3 Case Study Rationale

A case study has been described by as follows:

"The case study researcher typically observes the characteristics of an individual unit-a child, a class, a school or a community. The purpose of such observation is to probe deeply and to analyse intensely the multifarious phenomena that constitute the life cycle of the unit." Cohen and Manion (1995:106)

The TA resolution has been chosen as a case study due to the recent and unique nature of the resolution. SCC is the first county to have adopted a Transition resolution and as a result it is of particular relevance to conduct a case study, as the resolution may serve as an exemplar for other local authorities. By focusing on SCC's approach to addressing the challenges presented by peak oil, this dissertation hopes to unearth the processes and relationships that have lead to the adoption of the TA resolution, and to its subsequent implementation.

Due to their intensive nature, case studies "generate rich subjective data that may bring to light variables, phenomena, processes and relationships that deserve more intensive investigation" (Burns, 2000: 460). Given that no similar research has been conducted into SCC's Transition resolution or into any other Transition resolutions that have since been passed, it is hoped that this case study will unearth information that may be instrumental in assisting other county councils to address the challenges presented by peak oil.

The case study also seeks to determine whether as a result of this resolution the council has been successful in addressing the issue of peak oil. The success of the implementation of the TA resolution will be measured against the five criteria for a smooth Transition set out in The Post Carbon Cities guidebook (2007: 63). They are as follows:

- 1. Deal with transport and land use immediately
- 2. Tackle private energy consumption
- 3. Attack the problems piece-by-piece and from many angles
- 4. Plan for fundamental changes.. and make fundamental changes happen
- 5. Build a sense of community

### 3.4 Data Collection

#### 3.4.1 Interviews

This research is based on data collected from a number of semi-structured interviews with key individuals. They included TI members, council officers and council members/former council members from Somerset. Phone interviews were conducted with a member of a citizens group in Portland, Oregon<sup>34</sup>, and a former council member from Leicestershire<sup>35</sup> in order to elicit an account of the approach that the local authorities in both areas have taken to peak oil. Some of those interviewed wished for the text of their interview to remain confidential and as a result only their role is identified. A number is also used if there was more than one person with the same role e.g. Council officer #1. All other interview excerpts used will include the interviewees name as well as role. Quotes from interviews with the author will be italicised.

Due to the unavailability of members of the Conservative party to take part in face to face interviews or in phone interviews, a short set of questions was e-mailed to the party in the hope of a number of responses. Only one brief response was received from the council's cabinet member for the environment. Given the senior position of the councillor involved it can be assumed that this is the official position of the party with regard to the TA resolution but the brevity of the response did not give an insight into how the Conservative party intend to progress the implementation of the resolution. The nature of the method of engagement with the Conservative party member detracted from the ability of the responses offered. A short set of questions was also sent to a member of the Transition Movement but such an issue was not encountered as previous interviews with other Transition members clarified the member's response.

The table below indicates the number and type of interviews undertaken and the key individuals with whom they were undertaken. A list of questions indicative of themes explored in the interviews can be found in appendix 1.

<sup>&</sup>lt;sup>34</sup> The local authority in Portland Oregon have made a statement on peak oil and have published a report on peak oil following the commissioning of a peak oil task force.

<sup>&</sup>lt;sup>35</sup> Leicestershire adopted a Transition resolution following SCC's adoption of the TA resolution.

Interviewees	Role	Type of Interview	Date of Interview	Duration of Interview
Dan Hurring	Member of Transition Glastonbury- Actively involved in engaging with county council on behalf of the Transition Movement. Also recently contract by SCC to carry out mapping exercise.		15th July 2009	40 minutes
Linda Hull	Member of Transition Glastonbury- Actively involved in engaging with county council. Also a Town Councillor for Glastonbury	Face to face interview	15th July 2009	52 minutes
Alex Malcolm	Member of Transition Frome Involved in lobbying local government to address the issue of peak oil. Now actively involved in engaging with county council.	Face to face interview	15th July 2009	50 minutes
Cara Naden	Member of Transition Langport- Involved in engaging with county council.	E-mail question sheet	13th August 2009	NA
Council Officer	Officer within the Environment Directorate.	Face to face interview	16th July 2009	45 minutes
Council Officer	Officer within the Environment Directorate.	Face to face interview	14th July 2009	35 minutes
Jill Shortland	Liberal Democrat councillor for Chard South (Somerset), and former leader of Somerset County Council.	Face to face interview	14th July 2009	30 minutes
Paul Buchanan	Parliamentary candidate and spokesperson for the Liberal Democrats in East Devon, and former deputy leader of Somerset County Council.	Phone Interview	23rd July 2009	30 minutes
Jeremy O'Leary	Active member of Portland Peak Oil and one of the initial organizers of the City of Portland's Peak Oil Taskforce. Also a steering group member of Transition PDX (Portland's TI).	Phone Interview	27th July 2009	40 minutes
Neville Stork	Former Labour councillor for Loughborough South (Leicestershire) and champion of Leicestershire council's Transition resolution.	Phone Interview	23rd July 2009	25 minutes
Anthony Trollope-Bellew	Conservative councillor for Watchet & Quontocks (Somerset) and Somerset County Council cabinet member for the environment	E-mail question sheet	10 <sup>th</sup> August	NA

 Table 2. Details of interviews conducted

Given the exploratory nature of this research, semi-structured interviews were conducted in order to "elicit authentic accounts of subjective experience" (Miller & Glassner: 2004: 125). Semi-structured interviewing was found to "permit greater flexibility than the closeended type [as it] permits a more valid response from the informant's perception of reality" (Burns, 2000: 424). Silverman questions the authenticity of accounts given during interviews and cautions that they may merely be "a repetition of familiar cultural tales" (Miller & Glassner, 2004: 125). Given the unique and recent nature of the case study, this is not anticipated to be an issue, as there has been an insufficient lapse of time for the subject matter to become the subject of "familiar cultural tales". The discursive nature of the interviews, due to its lack of structure was extremely useful as it "permitted an iterative process of refinement, whereby lines of thought identified by earlier interviewees could be taken up and presented to later interviewees". (Beardswroth & Keil, 1992: 262 cited in Bryman, 2004)

#### 3.4.2 Documentary Evidence

In addition to the interviews carried out, minutes of meetings held between the council and TIs were also reviewed in order to obtain a greater understanding of events and in order to verify accounts given by interviewees.

## 3.5 Data Analysis

Data gathered during the interview process was analysed by closely reading over transcriptions<sup>36</sup> of each of the interviews in order to obtain statements and evidence relevant to the objectives of the research. A number of thematic patterns emerged across interviews, and the data was then organized and synthesized in light of these patterns. The thematic patterns helped define sub-headings for the analysis chapter, with the main headings reflecting the objectives of the research. Efforts were made throughout the analysis process to ensure that the text was interpreted in a way that was true to its context (Bryman, 2004: 415).

<sup>&</sup>lt;sup>36</sup> Given the semi-structured nature of the interviews some aspects of the interviews were not considered relevant to the research aim and objectives and were therefore omitted from the transcription.

Although triangulation is generally "the focus on combining methods of investigation" it can also be used "to refer to a number of data sources, to a number of accounts of events". (Burgess, 1984:144) "Triangulation assumes that looking at an object from more than one standpoint provides researchers and theorists with more comprehensive knowledge about the object." (Miller & Fox, 2004: 36) The validity and reliability of the data collected was ensured by interviewing representatives from each group of stakeholders who gave "a number of accounts of events", as well as comparing interview data with relevant documents.

## 4.0 Case Study Profile & Analysis

### 4.1 Case Study Profile

Somerset is a rural county, located in the South West of England. The county is divided into five districts; Mendip, South Somerset, West Somerset, Taunton Deane and Sedgemoore (see figure 5. below). Somerset local authority follows a two-tier system whereby the responsibility of the local authority is split between two levels<sup>37</sup>. Following the local elections in June 2009 the council is now under Conservative leadership after 16 years of Liberal Democrat leadership.



Figure 5. Map of Somerset illustrating its five districts (Somerset County Council, 2001).

In July 2008, under Liberal Democrat leadership, SCC became Britain's first 'Transition Authority'. SCC unanimously passed a motion declaring that:

1. This Council acknowledges the work done by communities in Somerset on Transition Towns and that the independence of the Transition Movement is key to its grass roots appeal.

<sup>&</sup>lt;sup>37</sup> Most services are provided at the county level and the rest are provided at the district level.

- 2. As demonstrated in its Climate Change Strategy, fully endorses the Transition Town Movement and subscribes to the principles and ethos of the organisation's goals to reduce dependence on fuel oil and create more sustainable communities.
- Commits to providing support and assistance to all towns in Somerset that wish to join this initiative to help them achieve the goals they set for themselves as local communities, as demonstrated under the 'Community Initiatives' section of the Climate Change Strategy.
- 4. Therefore, requests the Scrutiny and Executive Committees to consider through the council's strategic planning process; allocating funds to assist in achieving the outcomes of the Transition Towns Movement in Somerset and requiring all directorates to engage with and provide support for Transition Initiatives in Somerset
- 5. Through the work outlined above, seeks to become the first Transition Authority in the UK. Agrees to undertake a review of its budgets and services to achieve a reduction in dependence on fuel oil<sup>38</sup> and produce an energy descent action plan in line with the principles of the Transition Initiative.

This resolution is the first of its kind in the UK and has led the way for Transition at local authority level. The county council is responsible for such issues as strategic land use planning, highways and transport, waste disposal and education and thus the council's adoption of the resolution has the potential to have far reaching implications.

<sup>&</sup>lt;sup>38</sup> It is worth noting that although the resolution supports the aims of Transition which include addressing the challenges presented by peak oil, the resolution does not refer to peak oil or gas at any point, instead referring to the councils dependence on fuel oil. This may be due to the fact that national government has yet to adopt a position on peak oil. By supporting TIs it is implicit that the council seeks to address peak oil.

## 4.2 Analysis

# 4.2.1 The role of Transition Initiatives in the county council's adoption and implementation of the resolution.

#### Adoption

The passing of SCC's TA motion came about as a result of the initiative of one particular councillor rather than as a direct result of lobbying by TIs.

The deputy leader of the council at the time of the passing of the motion, Paul Buchanan, a Liberal Democrat, was central to the passing of the motion. Buchanan had been involved in setting up Transition Initiative Exmouth as well as other TIs in Devon, and through his involvement in the establishment of those TIs, he wrote a paper for SCC proposing that the council should become a TA. Following the publication of the paper, a campaign was orchestrated by Buchanan to promote the idea of a TA amongst all parties so that Transition wasn't seen to be politically biased. Buchanan engaged with a number of TIs in Somerset prior to the adoption of the motion and encouraged them to lobby their councillors about Transition related issues. However, not all of the TIs across the county were aware of the intention to forward a TA motion and were thus taken by surprise when the motion was in fact passed.

The Transition motion itself was passed unanimously by the council, *"fundamentally embedding transition at every level within the local authority"* (Buchanan, former deputy leader of the council, interview with author, 7/2009). The motion was framed in such a way so as to avoid local government taking a top down hierarchical approach to Transition, which would have contradicted the aims of the Transition Movement. As succinctly put by the former leader of the council Jill Shortland in an interview with the author; *"What we didn't want to do was 'to do things to communities"* (7/2009).

The Transition resolution provides the council with "a mandate to begin to take an integrated approach to its planning processes, putting the issues of fuel oil dependency and climate change at the heart of its forward planning" (Somerset County Council: 2009). The resolution seeks to achieve this by pledging to recognise the work that is currently

being done by TIs across the county and by providing support and assistance to towns in Somerset that wish to join the movement. It also commits the council 'to undertaking a review of its budgets and services to achieve a reduction in dependence on fuel oil and produce an energy descent action plan in line with the principles of the Transition Movement'. The resolution is thus two pronged (see figure below).



**Figure 6.** The two-pronged structure of Somerset County Council's Transition Authority resolution.

Although there were and are a large number of active TIs<sup>39</sup> in Somerset as well as other groups who are active on climate and energy issues that do not label themselves as TIs, it appears that the TA resolution came about more as a result of a particular councillor taking on the mantle of 'Transition Champion' rather than as a result of the initiative of TIs in Somerset. As one TI member commented "*they resolved, almost independently to become a Transition Authority, somewhat requiring us to engage with them!*" (Dan Hurring, Transition Glastonbury, interview with author, 7/2009). However, that is not to say that individual TI members were not involved in pressing for such a resolution.

#### Implementation

The implementation of the resolution is still at the very early stages as the resolution was only passed in July 2008. As highlighted by one council officer *"the wheels of change [in the council] churn very slowly"* (Council officer #1, interview with author, 7/2009). Although the resolution very much focuses on the independence and grassroots nature of TIs rather than on the council's internal operations, Transition members have commented *"that the flavour of a lot of the meetings we've had with officers and a lot of what has happened has been about their operation strangely enough"* (Linda Hull,

<sup>&</sup>lt;sup>39</sup> There are currently 23 communities in Somerset that are involved in Transition (see table.3 and figure.7 below).

Transition Glastonbury, interview with author, 7/2009). To date there seems to be a lack of clarity within the council about how to progress the resolution within the council, and as a result it appears that the council are relying on TIs to advise them and provide guidance on how to become a TA.

Members of TIs in Somerset were surprised by the fact that following the adoption of the resolution, members and officers from the council turned to them for assistance in implementing the resolution: "I was surprised by the amount they didn't know and the amount they were turning to us for answers, you know, I think that's because it's kind of unprecedented the experiences we are going through at the moment and are about to go through......There was an openness to discussion and an openness to ideas and I think actually underneath it all there is probably a level of excitement..." (Dan Hurring, Transition Glastonbury, interview with author, 7/2009).

The fact that the council are open to interacting with TIs and are open to their suggestions can be viewed as a positive step and in keeping with the opinion of the Oil Depletion Analysis Centre that "councils cannot achieve everything by themselves; the necessary changes will require much greater co-operative spirit within and between communities in future" (ODAC, 2009: 34). One TI member suggested that as a result of the fact that *"ideas are swelling up from below rather than down from above, the natural hierarchy of things is broken.... Because it's grassroots it could potentially have the effect of causing council ministers to serve rather than to rule"* (Dan Hurring, Transition Glastonbury, interview with author, 7/2009). Although it may be argued that by engaging with local government the TI run the risk of becoming co-opted (Trapese, 2009) or becoming entangled in the bureaucracy of local government, the view expressed by the Transition member above demonstrates the positive effects that engagement with the local authority can potentially have<sup>40</sup>.

<sup>&</sup>lt;sup>40</sup> Buchanan (former deputy leader of the council) argues that TIs should first seek to build a bridge to local government through engaging with their locally elected parish and town councillors rather than engaging directly with county councillors so as to avoid needlessly reinventing the wheel....*"All parishes and towns have elected members, the local TI should be establishing credibility and competency in the eyes of the local people who matter-not seeking to hold a distant local authority responsible"* (interview with author, 7/2009). One TI interviewee spoke of how their town and district councillors were "blind and deaf" to the issue of peak oil and climate change, and as a result, they saw the chance to link with the county council as an opportunity for their TI to win some legitimacy in the eyes of the town and districts councillors. In light of this situation it can be argued that TIs should seek to build a direct link to the county council where the district council in their area is unsupportive of Transition.

#### **Transition Somerset**

At present there a core group of TI members that have been engaging with SCC since the resolution was passed to ensure the implementation of the resolution. This group consists of TI representatives from Transition Frome, Transition Glastonbury. This group are in the process of trying to set up 'Transition Somerset', a network consisting of nominated representatives from the TIs in Somerset.

It is hoped by the core group of TI members that TIs will group into the five districts (see table. 3 and figure. 5 below) of the county and nominate one, or ideally two representatives from each district to regularly attend the district Strategic Partnership meetings and then report back to the TIs in their respective districts on the outcome of the meetings.

Mendip	West Somerset	Sedgemoor
Glastonbury	Minehead	Shapwick
Frome		Wedmore
Shepton Mallet	Taunton Deane	
Wells	Taunton	North Somerset
Street	North Curry and Stoke St	Winscombe and Sidcot
Coxley	Gregory	
	Wiveliscombe	BANES
South Somerset	Wellington	Bath
Langport	4 Parishes Transition Initiative	Wellow
Bruton	Covering Stawley, Ashbritle,	
Castle Cary	Appley and Greenham-	
Ilminster	outside Welligton.	
South Peterton		

Table 3. Transition Initiatives Divided by District (Transition Somerset, 2008).



**Figure 7:** Transition Towns/Initiatives and related groups located in Somerset. (Transition Towns Wiki, 2009)

Transition Somerset seeks 'to build, strengthen, and co-ordinate this growing network' through a number of steps. These include:

- Developing effective channels of communication within the network and with decision and policy makers
- Nurturing the development of other groups
- Influencing community planning by embedding Transition principles
- Working with SCC and other agencies to make Somerset the first Transition Authority and county (Transition Somerset, 2009)

Shortland (former leader of the council) believes that one of the key aims of the resolution is to *"provide those groups with a way of networking with each other"* in order for them to *"bind together to create a strength which will help them to hold other organisations to account like the health service and police service. Those are other*
organisations actually do need to think about these issues as well" (interview with author, 7/2009). The core group envisage this being done through Transition Somerset.

### Implementation of the Resolution within the Council

The group of TI members that have engaged with SCC to try and progress the implementation of the resolution also see their role in working with SCC as important in ensuring that the council live up to their commitments in the resolution. A council officer also commented that, *"the biggest role of TIs [following the adoption of the resolution] is to keep the pressure up......the way things get changed in a local democracy is by putting pressure on the members"* (Council Officer #1, interview with author, 7/2009). Although TIs may engage with SCC to ensure that they continue to receive support from the council, Buchanan has cautioned that TIs should focus on achieving their own goals rather than trying to affect the work of the council. He argues that *"if a local authority chooses to endorse the principles of Transition, it is for that authority to determine the best way to get it's house in order"* (interview with author, 7/2009).

### Education:

It seems that the resolution did not come about as a result of a deep understanding of the issue of Transition on the part of many of the councillors despite Buchanan's campaign to get all parties involved<sup>41</sup>. Some TI members believe that following the adoption of the motion it has been a process of the TIs trying to create opportunities for councillors to find out more about Transition. The first activity the council engaged in that was aimed at moving them towards becoming a TA in practice was Transition Training (see figures 5 & 6 below) which was facilitated by the Transition Network<sup>42</sup>.

<sup>&</sup>lt;sup>41</sup> On the back of the research conducted, it has come to light that a request for a briefing document on the Transition Authority resolution was made by the new environment cabinet member. This demonstrates the lack of education within the council amongst senior members and officials and also the scope that exists for further developing the resolution. <sup>42</sup> The Transition Network is a formally-constituted body which supports and coordinates activities among local Transition

<sup>&</sup>lt;sup>42</sup> The Transition Network is a formally-constituted body which supports and coordinates activities among local Transition groups (Hopkins & Lipman, 2009 cited in Seyfang, 2009).



**Figure 8.** Transition training day held for senior council management and council members (Hopkins, 2009a).





The training was aimed at lead executive figures and political figures within the council in order to educate them about Transition and about how the council can work towards it. It was intended that the initial training would be followed up with training for council officers but it is yet to be seen whether the new administration intends to continue the training.

### Mapping:

Following an initial meeting with the council in December 2008 TIs questioned the council about progressing the resolution. They sought to find out where the council stood in terms of Transition, as there was no point in duplicating work that had already been

carried out. A TI member was subsequently contracted by the council to undertake a 'Transition Audit' of the council's services and departments to find out where SCC stood in terms of projects and policies currently in place that reflect Transition objectives. This audit is currently underway and it is hoped that the mapping exercise will highlight the gaps where the council's work is not consistent with Transition objectives and this will provide the council with a platform from which to work from.

### 4.2.2 Actual and potential success to date of Transition Authority

The council has yet to define what it means to be a TA in practice and as a result, it is difficult to determine whether the council has in fact successfully become a TA. In lieu of a definition against which success can be gauged, the five principles for a successful Transition set out in the Post Carbon Cities<sup>43</sup> guidebook (2007: 63) referred to above will be used to critically assess whether the TA resolution has been successful in addressing the challenges presented by peak oil which is intrinsic to the concept of Transition.

The guidebook suggests that these principles should be integrated into local authorities' ongoing decision-making and long range planning processes and they will be crucial in determining the success of the TA resolution to date and its potential for future success. Whether the structure of the resolution facilitates the fulfillment of these five principles will also be assessed.

### 1. Deal with transportation and land use.

The Post Carbon Cities guidebook (Lerch: 2007: 63) suggests that in order to address transportation and land use issues local authorities need to:

- Fundamentally rethink the municipality's land use and transportation practices
- Make land use and transportation infrastructure decisions with 100 year timeframes in order to sow the seeds of change
- Organize with neighboring jurisdictions to address the challenges at a regional level.

<sup>&</sup>lt;sup>43</sup> Although the book refers to 'cities', many if not all of the strategies referred to in the book can just as easily be applied to towns and villages and rural counties.

As of yet there is no evidence that SCC has begun to address transportation and land use in light of peak oil. The planning system in England is a plan-led<sup>44</sup> system that is addressed at two levels; the regional level and the local level. Although the county council does not have direct control over either, it does contribute to the development of the Regional Spatial Strategy and can thus bring the peak oil agenda to the fore when considering any future plans. By taking a strong line on peak oil the council should set an example for district councils so that they may consider peak oil in their Local Development Frameworks. TIs located in those districts may also lobby their district councillors.

### 2. Tackle private energy consumption

It is argued that although reducing government consumption is an important step, "it will do very little to reduce overall community energy vulnerability without similar reductions in the private section" (ibid). SCC have committed themselves to reducing carbon emissions per capita "through close partnership with stakeholders and communities" (Somerset County Council, 2008: 28) The council seeks to engage all members of the community on issues of climate change through "Somerset's print, broadcast and internet-based media" (ibid.) and it is assumed that the issue of private energy consumption will be addressed on this basis. Although the issue is addressed under the council's climate change strategy it is still linked to peak oil, indicating the intertwined nature of the issues.

The council's support of TIs in the resolution will help the council in addressing this issue as TIs are grassroots groups who interact closely with people living in their communities any may therefore influence private consumption patterns

<sup>&</sup>lt;sup>44</sup> The plan-led system is "heavily determined, from a policy point of view, on the priorities of central government and creates uncertainty for local authorities wishing to take an alternative policy line to the content of national policy documents" (Tewdr-Jones, 2002: 100). As a result the system is plan-led in so far as it is consistent with central government policies (ibid.) and this may hamper local government taking radical action on peak oil.

### 3. Attack the problem piece by piece and from many angles

It is posited by the guidebook (Lerch: 2007: 65) that by combining many solutions and using existing practices and technologies a city's dependence on fossil fuels can be reduced and supply increased.

The very way in which the resolution is phrased addresses this issue. As mentioned above, the resolution is two pronged and by the very nature of the structure seeks to "attack the problem piece by piece and from many angles", as each TI is unique, adopting solutions that are relevant to their local area. The resolution also commits the council to addressing its own dependence on fuel oil. The council's willingness to engage with TIs will allow innovation to emerge as the creation of new space for interaction between the community and professionals within the council will create new perspectives that may lead to new solutions (Newman, 2009: 116).

SCC agreement to undertake a mapping exercise of existing council practices and policies will help to establish a starting point from which the council can begin to address the issue, based on existing practices.

### 4. Plan for fundamental changes...and make fundamental changes happen.

In order to 'Plan for fundamental changes...and make fundamental changes happen' the guidebook advises that local authorities "educate and involve fellow elected officials and staff" as well as advising to "educate and involve your stakeholders" (Lerch: 2007: 65). SCC has been proactive in arranging education for senior council officers and council members although it could be argued that the group that attended the training was rather self selecting, as not all members or senior council officers attended. By educating officials they will be "better prepared to come up with solutions" (ibid.).

The council's engagement with TIs ensures that those stakeholders who have engaged with TIs are aware of the challenges at hand. The council should however seek to educate stakeholders to whom TIs may not have access.

### 5. Build a sense of community

By acknowledging the work done by TIs and committing itself to supporting them, the council recognises the need to develop a greater sense of community through grassroots

movements such as the Transition Movement. Although the council has committed itself to supporting TIs it is still to be seen how supportive they will actually be.

The two pronged nature of SCC resolution places the council in a good position to be successful in addressing peak oil in light of the criteria above. The resolution strongly addresses the need for community involvement as well as addressing the need for the council to play its part in addressing peak oil. TIs can work at effecting change in ways that may not be possible for SCC and vice versa and this provides strength and depth to the resolution.

# 4.2.3 Actual and perceived barriers to the implementation of the resolution.

"Time, money, inertia, lack of awareness and recognition of what the real issues are, the same barriers that addressing climate change faces...It extends across the whole of society the fact that business as usual is easier to adhere to and big changes are too big and too incomprehensible to deal with. In the immediate term [the major barriers to the implementation of the resolution are the] lack of money and resources to push it forward" (Council Officer #1, interview with author, 7/2009).

The barriers outlined below have been informed by key themes and tensions outlined during the interview process by council members and officers, and TI members.

### Lack of understanding

One of the major barriers to the implementation of the resolution identified by most of those interviewed is the lack of understanding of the concept of Transition both within the council and also amongst members of the public.

The challenge within the council is that "there are people who have heard of the Transition Movement, others who have never heard of it and others who have heard of it but don't know what it is or what it means and then trying to relate it to their day to day life in the council. The lack of understanding is a massive thing that we need to overcome" (Council Officer #2, interview with author, 7/2009). The former leader of the council Jill Shortland has emphasised the need for ongoing training for council officers as well as members in order to progress the resolution.

Lack of public understanding was also flagged by a number of interviewees as a potential barrier for the successful implementation of the resolution. The point was made by one TI member that if the resolution is going to be taken seriously *"it must continue to spread on that grassroots level because you want every councillor to be badgered and for them to be in contact with their Transition group and aware of its actions......It's got to be everywhere and it's got to appear as if it's everywhere and then they [the councillors] will* 

*take it seriously because unless it's a vote winner it only has so much attraction"* (Dan Hurring, Transition Glastonbury, interview with author, 7/2009).

Another challenge facing the successful implementation of the resolution is whether the public in Somerset actually want Transition: "You can have a few powerful people in a TI who can do a lot, but if it is not well received in the community then it doesn't mean anything. They key is that it has to be received well, it has to tune in to what the community want" (Dan Hurring, Transition Glastonbury, interview with author, 7/2009).

Lack of understanding on the side of TIs of how local government operates has also been highlighted as a potential barrier: *"Everyone has an opinion of how local government works but that's what's happening and you can't come in and alter a massive system that is in place. On the Transition side they need to be sympathetic to the system that they are working within. Its kind of a two way process of working out how to understand each other"* (Council Officer #2, interview with author, 7/2009).

#### Lack of Resources

Following an initial meeting between the leader of the council and a number of TI members in December 2008, sustainable development officers from the council were instructed by the leader of the council to engage with TIs across the county to work towards implementing the resolution. The sustainable development team have been charged with this work in addition to an already extensive portfolio of work despite not being given further time capacity or resources to do so. As a result it is felt that the lack of time and resources available to sustainable development officers to dedicate to Transition does act as a barrier to the implementation of the resolution. It has also been argued that Transition is an issue that cross cuts all council directorates and is not only relevant to the sustainable development team and as a result there someone should be employed to work across the departments to co-ordinate the implementation of Transition within the council as well as liaising with TIs.

As of yet very little funding has been made available to TIs to fund Transition related projects such as Transition Somerset. However, it has been cautioned that TI should not become overly reliant on funding from Local Authority sources, that such dependence is unsustainable. Transition members suggest that start up funding would be very beneficial but that inevitably these initiatives need to be self funding.

#### Lack of enthusiasm about Transition Somerset

One of the potential barriers to the implementation of the resolution outlined by TI members has been the failure of Transition Somerset to take off. The idea behind Transition Somerset is that "by joining all the TIs in Somerset, they could act together at appropriate times to put pressure on the council from many different parts of the county" (Linda Hull, Transition Glastonbury, interview with author, 7/2009). As outlined by one TI member, in order for the network to function, members of the 20 TIs must act together and understand the reason for doing so. Following attempts to bring all of the TIs together at different events Linda Hull is now unsure as whether it is something that other TIs across Somerset actually want: "When I say it's not something they want, I'm not sure they have the time to invest and I don't think they necessarily see the value of drawing together.....I also think that people are also pretty disaffected with politics" (interview with author, 7/2009.).

### The Conservative Administration

Despite acknowledging the non-political nature of Transition, many of those interviewed expressed concern for the progression of the resolution following the change of administration, with the Conservative party now in control of the council. The Local Initiative Budget, a potential source of funding for Transition related projects was recently cut by one-third by the Conservative party to the dismay of many. A council officer made the point that although the Transition resolution has not come with a budget it does need a budget to develop and this now looks unlikely. A Liberal Democrat member argued that; *"I don't think the new administration realises that the long term impact of what we've been doing will be to keep costs down and I think they might think that the ability to have short term cost cuts will not actually impact negatively in the long term"* (Jill Shortland, former leader of the council, interview with author, 7/2009). Following enquires to the Conservative party, the author has ascertained that they do intend to continue

supporting the resolution but it is not clear how they intend to do so. The current economic climate may affect their level of support.

# **5.0 Conclusion**

In answer to the research question posed by this dissertation, it can be said that TIs have been extremely influential in the implementation and progression of the resolution through their engagement with the council and their efforts to establish a network of TIs across Somerset. However, the passing of the motion was as a result of a councillor taking on the mantle of 'Transition Champion' and forwarding the motion. Although some individual TI members were involved in lobbying the council to address the issue, there was not a widespread campaign by TIs in Somerset for the county council to become a TA. TIs may not have been directly instrumental in the passing of the Transition Authority motion by SCC, but there is no doubt that the Transition Champion, Paul Buchanan and members of TIs that did petition their county councillors were influenced by the work of TIs.

Following the passing of the motion TIs have played a central role in trying to progress the resolution. It is the opinion of the author that changes would not come about internally within the council unless the core group of TI members who have engaged with the council to date were there to badger the council. It has been argued that TIs can achieve a considerable amount without having to engage with the county council if they establish a reputation with their district and parish councillors. Although the author respects this view there may be cases where parish and district councillors are unreceptive to the concept of Transition and must therefore be by-passed. Transition Somerset is seen as a practical way for TIs in Somerset to share the burden of engaging with the county council as those involved in TIs are volunteers and are susceptible to burn out.

Although there is a sense of frustration amongst some TI members about the level of actual success in implementing the resolution to date, they must bear in mind the sheer size of the county council (17,000 employees in addition to its partners). SCC is a vast organization and things move slowly<sup>45</sup>. The fact that SCC has passed the resolution

<sup>&</sup>lt;sup>45</sup> Jeremy O'Leary of Portland Peak Oil and Transition PDX when interviewed spoke of 'workability'. He used this term to describe the relationship between the grassroots groups and the local authority in Portland. '*Workability'* he believes has helped to side step any '*ideological nonsense'* by "*acknowledging the current set of circumstances that the local authority are working from and then working with the local government from that point" (interview with author, 7/2009)*. This is an interesting concept and should be borne in mind by TIs when engaging with the county council in future.

demonstrates that SCC is alert to the concept of Transition and is ready to serve the people.

The two pronged structure of the resolution is instrumental in facilitating the fulfillment of the five principles for successfully addressing peak oil outlined in the analysis section and thus, although there may not be any tangible successes to date in terms of addressing peak oil, the ground has been laid for future success. The council must however be careful not to rely solely on the activity of TIs in their community for them to label themselves a TA. Change must happen within the council as well as supporting TIs<sup>46</sup>. In comparison with Portland City's resolution, SCC's resolution is weak in setting out what they themselves should be doing to address peak oil. Portland's peak oil resolution is innovative in that it sets definite targets for the council and pledges to establish a peak oil task force to assess Portland's exposure to diminishing supplies of oil and natural gas and make recommendations to address vulnerabilities. The author does not seek to undermine the support pledged by SCC to TIs, but rather to outline the fact that the council could perhaps have placed more emphasis in the resolution on their internal workings.

Of the barriers outlined above, the most immediate barrier that must be addressed is the lack of understanding of Transition both within the council and amongst the general public. Once this barrier is overcome, it should become more apparent why the issue of peak oil needs to be addressed, thus make it easier to overcome the other barriers identified.

This dissertation has demonstrated that TIs play a crucial role in helping local authorities to address peak oil and that SCC's two pronged resolution has strengthened that role. SCC has laid the foundations for change and must now live up to its commitments as set out in the resolution. The council must however be sure to build on those strong foundations and continue to provide TIs with the necessary support and also to constantly review their own operations in light of peak oil. If this is to happen, council members must continue to "think outside the box and to be motivated by a genuine concern about impacts and future outcomes that will likely extend beyond the electoral

<sup>&</sup>lt;sup>46</sup> "Passing a resolution acknowledging peak oil and climate change is a critical first step in moving toward resiliency, but the resolutions need to be followed by a plan for implementing change" (Newman et al.: 2009: 114).

cycle" (Newman et al., 2009: 115). By doing so council members will demonstrate that they are truly committed to addressing the challenges presented by peak oil.

# 6.0 Recommendations

The following recommendations for the successful implementation of that resolution are set out on the basis of the primary and secondary research conducted. Given the two pronged nature of the resolution, recommendations for its successful implementation have been categorised accordingly. They are as follows:

### Implementation of the resolution within the council

• Education within the council.

There needs to be widespread education on peak oil related matters throughout the council. Although there has been training for high level officers and councillors it is recommend that training for all council staff is essential if Transition is to be implemented successfully at local authority level.

• <u>A statement on peak oil should be made by the council.</u>

Despite SCC passing the TLA resolution, as of yet the council has not adopted an official position on peak oil which is unsurprising given that central government has as of yet failed to directly address the issue of peak oil. As argued by Lerch "a municipal statement gives a sense of direction, legitimacy and momentum to what could otherwise be an unfocused and contentious policy making process". (Lerch: 2007: 70)

- <u>Set up a peak oil task force to identify vulnerabilities in Somerset.</u>
   A peak oil task force investigates the way in which a community is dependent on fossil fuels (Lerch: 2007). Once the county council has conducted an investigation of its dependency on fossil fuel it can then begin to plan for its "energy descent".
- Setting definite targets for a reduction in the councils consumption of fossil fuels. By setting targets the council have a goal to work towards and this ensures that they are addressing peak oil internally rather than relying solely on the actions of TIs.

 Establish a funded Transition position within the council with responsibility for coordinating the implementation of the resolution within the council as well as signposting TI members towards funding.

Given how far reaching the implications of peak oil are and the fact that it cuts across directorates, it is necessary that the council employ a person or persons who are responsible for the implementation of the resolution within the council across all council departments. Similar to the implementation of the council's climate change strategy, any Transition strategy will require collaboration between all stakeholders and the co-ordination of diverse different bodies who all have their own specific interests and agendas. As a result, any Transition funded position within the council will need to be a senior position as it will be a very responsible position.

### Supporting and assisting TIs to develop independently

- As well as for co-ordinating the implementation of the resolution within the council, any <u>funded Transition employee</u> within the council should be responsible for signposting TI members towards funding.
- <u>A commitment to meet regularly with a Transition Steering group or 'Transition</u> <u>Somerset' representatives.</u>

This will ensure that TI representatives are consulted on spatial and community planning issues.

 <u>Getting Transition written into community budgets and committing to reviewing</u> these budgets in terms of their life cycle cost as well as their initial capital costs. This will ensure a constant source of funding for Transition projects at a community level.

# Appendices

## **Appendix 1: Sample Interview Questions**

### Sample Interview Questions for Face to Face Interviews

- How did the Transition resolution emerge? Was it something that emerged from the grassroots or was it initiated by a Councillor?
- Did the motion arise due to the number of Transition Initiatives (TI) active in the Somerset area? Did TIs influence the decision to adopt the motion?
- Why was the county council specific in framing the motion in the way that it did? Why are they specific in setting up this kind of relationship with TIs rather than making a statement similar to that made in Portland? What does this relationship mean?
- Does the motion imply change from within the Local Authority or does it assume that TIs will be responsible for addressing all issues relating to peak oil and for planning for post peak oil, thus divesting themselves of any responsibility on this issue?
- Is Somerset County Council supporting the process or driving it?
- By focusing so much on TIs are the county council suggesting that in order for meaningful change to come about it must begin at community level? If so how does the community (i.e. constituents in the community) respond to TI and the approach?
- What does it mean for the County Council to be a Transition Authority in practice?

- Has the Council made a statement on Peak Oil?
- Has the county council carried out 'a review of budgets and services to achieve a reduction in dependence on oil' as promised in the resolution?
- Has the County Council started to develop policy that reflects its commitment in the resolution 'to achieve a reduction in dependence on fuel oil and to produce an energy descent action plan'?
- Have all directorates within the council been briefed on peak oil and its implications?
- Are climate change and peak oil policies being coordinated by whom, and how?
- How are Transition related projects being funded?
- How successful does the county council feel the Somerset model/approach has been to date?
- What barriers have the council experienced to implementing the motion?
- How does the County Council measure its success as a Transition Authority? Does it measure its success against a list of Transition Movement Objectives?
- What does the future hold for Transition Authority Somerset following the success of the Tory party in the recent elections?
- Have TIs been given the support promised by the county council in the resolution?
- What do TIs want to see happening to move the Transition Authority forward?
- Is there any fear of Transition Initiatives being co-opted?

- What it the perception TIs have of their relationship the county councilexpectations, surprises along the way, problems foreseen?
- What kind of relationship did TIs have with the Liberal Democrats? What kind of relationship do you anticipate having with the Conservative party?
- What exactly is Transition Somerset? What does it seek to achieve?

### Questions Sent to the Conservative Party via E-Mail

- What view does the Conservative party take of the 'Transition Authority' resolution passed in July 2008?
- Is the party willing to continue to support the resolution? If not, what are the party's reasons for not supporting the resolution?
- Does the party acknowledge Peak Oil as an issue? Will this issue influence the party's policy decisions?
- If the party does acknowledge the need to take action to prepare for peak oil do they agree with the approach adopted by the Transition Authority resolution (supporting the grassroots Transition Initiatives) or would you adopt a different approach? Are there any alternatives under consideration in this regard?

### Appendix B: The City of Portland's Peak Oil Resolutions.

### Resolution No.36488

Establish a goal to reduce oil and natural gas use in Portland by 50 percent in 25 years and take related actions to implement recommendations of the Peak Oil Task Force. (Resolution)

WHEREAS, global reserves of oil and natural gas are finite and sufficient substitutes are unlikely to be available in the immediate future; and

WHEREAS, U.S. oil and natural gas production have peaked and are now in decline, ensuring our nation's continued and growing dependence on oil and natural gas imported from politically unstable regions; and

WHEREAS, a growing body of energy industry experts believe that the world has already arrived at, or will soon arrive at, the peak of global oil production, which will be followed by an inevitable decline in available supply thereafter; and

WHEREAS, global demand for oil and natural gas continue to increase; and

WHEREAS, the City of Portland and its citizens and businesses depend on oil and natural gas for their economic welfare and their most critical activities, including transportation and food supply; and

WHEREAS, a large majority of money spent on fossil fuels leaves Oregon and provides no local economic benefit, while many of the solutions to lessening dependence on fossil fuels result in local jobs and substantial economic benefits; and

WHEREAS, reducing use of oil and natural gas also reduces emissions of carbon dioxide, the primary cause of global warming; and

WHEREAS, City Council adopted Resolution 36407 establishing a citizen Peak Oil Task Force and directing the task force to develop recommendations to City Council on strategies the City can take to mitigate the impacts of declining energy supplies; and WHEREAS, the Peak Oil Task Force has presented eleven recommendations to City Council that propose reducing oil and natural gas use by 50 percent over 25 years; educating the public; accelerating implementation of land use and transportation policies that reduce oil use; expanding energy efficiency programs; supporting sustainable economic development; strengthening social and economic support systems; and preparing for energy emergencies; and

WHEREAS, the city's ability to reorganize its transportation system to meet this goal with the requisite investments in walking, bicycling, carpool, and transit infrastructure and programs will require new, additional financial resources; and

WHEREAS, many of the actions that will reduce Portland's exposure to oil and natural gas will take many years to implement fully, and it is therefore essential to initiate change immediately;

NOW, THEREFORE, BE IT RESOLVED, that the City of Portland has a goal to reduce oil and natural gas use in Portland by 50 percent by 2030; and

BE IT FURTHER RESOLVED, that the Director of the Office of Sustainable Development shall issue a report annually on oil and natural gas use in Portland; and

BE IT FURTHER RESOLVED, that all bureau sustainability plans, developed through the Sustainable City Government Partnership, shall identify and carry out strategies for reducing oil and natural gas use in internal bureau operations; and

BE IT FURTHER RESOLVED, that the Planning and Development Bureau Directors shall propose to City Council an action plan to implement the recommendations in the Peak Oil Task Force report that includes funding needs; and

BE IT FURTHER RESOLVED, that Commissioner Adams will offer an implementation plan regarding transportation-related issues responsive to the Peak Oil Task Force recommendation within one year; and BE IT FURTHER RESOLVED, that the Director of the Office of Sustainable Development shall, in

consultation with the Planning and Development Bureau Directors, develop policy options this calendar year to improve building environmental performance, including reducing oil and natural gas use and carbon dioxide emissions; and

BE IT FURTHER RESOLVED, that the Director of the Office of Sustainable Development shall work in coordination with Commissioner Sten and Saltzman's offices to revise the *Local Action Plan on Global Warming* in response to the most recent scientific findings about climate change and to incorporate the recommendations of the Peak Oil Task Force; and

BE IT FURTHER RESOLVED, that the conclusions and recommendations of the Peak Oil Task Force be considered in the City Strategic Plan and updates to the Comprehensive Plan; and

BE IT FURTHER RESOLVED, that the Planning Commission and Sustainable Development Commission shall monitor implementation of the recommendations of the Peak Oil Task Force.

Adopted by the Council, Commissioner Randy Leonard Commissioner Dan Saltzman Commissioner Erik Sten Commissioner Sam Adams Mayor Tom Potter By: GARY BLACKMER Auditor of the City of Portland Deputy

Prepared by: Brendan Finn March 1, 2007

#### Resolution No. 36407

Establish a Peak Oil Task Force to assess Portland's exposure to diminishing supplies of oil and natural gas and make recommendations to address vulnerabilities (Resolution)

WHEREAS, global reserves of oil and natural gas are finite and sufficient substitutes are unlikely to be available in the immediate future; and

WHEREAS, U.S. oil and natural gas production have peaked and are now in decline, ensuring our nation's continued and growing dependence on oil and natural gas imported from politically unstable regions; and

WHEREAS, a growing body of energy industry experts believe that the world has already arrived at, or will soon arrive at, the peak of global oil production, which will be followed by an inevitable decline in available supply thereafter; and

WHEREAS, global demand for oil and natural gas continue to increase; and

WHEREAS, following the global peaks of oil and natural gas production, the interaction of decreasing supply and increased demand will cause the price of oil and natural gas to become more volatile; and

WHEREAS, the United States Department of Energy's National Energy Technology Laboratory has stated that, "The problems associated with world oil production peaking will not be temporary, and past 'energy crisis' experience will provide relatively little guidance. The challenge of oil peaking deserves immediate, serious attention, if risks are to be fully understood and mitigation begun on a timely basis"; and

WHEREAS, the City of Portland and its citizens and businesses depend on oil and natural gas for their economic welfare and their most critical activities, including transportation and food supply; and

WHEREAS, a large majority of money spent on fossil fuels leaves Oregon and provides no local economic benefit, while many of the solutions to lessening dependence on fossil fuels result in local jobs and substantial economic benefits; WHEREAS, Portland residents and businesses are not currently aware of the full implications of an impending decline and will greatly benefit from an objective source of information on this topic; and

WHEREAS, the City of Portland has adopted the *Local Action Plan On Global Warming*, the success of which depends upon reducing carbon dioxide emissions from burning fossil fuels; and

WHEREAS, the City of Portland has a national reputation for planning and actions aimed at maintaining the City's social values, equity, and quality of life and can take a leadership role in what may become one of the greatest political economic and societal issues of the next half century; and

WHEREAS, the Oregon Department of Energy and METRO share the City's concerns about the uncertainty of future oil supplies and has offered to provide technical assistance in assessing the local implications of peak oil;

NOW, THEREFORE, BE IT RESOLVED, a Peak Oil Task Force will be established to assess Portland's exposure to diminishing supplies of oil and natural gas and make recommendations to address vulnerabilities. The Task Force will be lead and staffed by the Offices of Sustainable Development and will coordinate with the Office of Transportation, the Bureau of Planning and other applicable bureaus. It will include up to 11 members representing a broad range of community and business interests.

BE IT FURTHER RESOLVED, the Task Force's charge is:

- a. To acquire and study current and credible data and information on the issues of peak oil and natural gas production and the related economic and other societal consequences;
- b. To seek community and business input on the impacts and proposed solutions;

- c. To develop recommendations to City Council in this calendar year on strategies the City and its bureaus can take to mitigate the impacts of declining energy supplies in areas including, but not limited to: transportation, business and home energy use, water, food security, health care, communications, land use planning, and wastewater treatment. These recommendations will be considered as amendments to the Local Action Plan on Global Warming when it is revised in 2007 and integrated into citywide long term strategic planning; and
- d. To propose methods of educating the public about this issue in order to create positive behavior change among businesses and residents that reduce dependence on fossil fuels.

Adopted by the Council, May 10, 2006 Commissioner Sam Adams Commissioner Randy Leonard Commissioner Dan Saltzman Commissioner Erik Sten GARY BLACKMER Auditor of the City of Portland By: /S/ Susan Parsons Deputy

Mayor Tom Potter Prepared by: Brendan Finn May 10, 2006

### Bibliography

Andrews, S. (2008). 'Transitional Therapy', *The Land Magazine*. Summer 2008 Edition. Available at: <u>http://transitionculture.org/wp-content/uploads/59-60.pdf</u>. [Accessed 19th July 2009]

Atkinson, A. (2007a). 'Cities after oil-3: 'Sustainable development' and energy futures', *City*, 11(2): 201-213.

Atkinson, A. (2007b). 'Cities after oil-2: Background to the collapse of 'modern' civilisation', *City*, 11(3): 293-312.

Atkinson, A. (2007c). 'Cities after oil-3: Collapse and the fate of cities', City, 12(1): 79-106.

Beardsworth, A., Keil, T. (1992). 'The Vegetarian Option: Varieties, Conversions, Motives and Careers', *Sociological Review*, 40(2): 253-93.

British Wind Energy Association (2009). 'England's Regional Renewable Energy Targets:ProgressReport'[online].Availableat:<a href="http://www.bwea.com/pdf/publications/RRETProgressReport.pdf">http://www.bwea.com/pdf/publications/RRETProgressReport.pdf</a>. [Accessed 12th ofAugust 2009]

Bryman, A. (2004). Social Research Methods. 2<sup>nd</sup> Edition, Oxford: Oxford University Press.

Buchanan, P. (2008). 'Local Authorities, A Role in Transition?', *Fourth World Review*, 148:19.

Burgess, R., G. (1984). *In the Field: An Introduction to Field Research*. 1<sup>st</sup> Edition, London: George Allen & Unwin Ltd.

Burns, R., B. (2000). *Introduction to Research Methods*. 4<sup>th</sup> Edition, London: Sage Publications.

[60]

Campbell, C., J. and Laherrere, J., H. (1998). 'The End of Cheap Oil', *Scientific American,* March Edition: 78-83. Available at: <u>http://dieoff.org/page140.pdf</u>. [Accessed 19th August]

Carr, M. (2004). *Bioregionalism and civil society: democratic challenges to corporate globalism.* Vancouver: UBC Press.

Chatterton, P. and Cutler, A. (2008). 'The Rocky Road to a Real Transition' [online]. Available at: <u>http://trapese.clearerchannel.org/</u> [Accessed 21<sup>st</sup> August 2009]

Cicourel, A., V. (1973). Cognitive Sociology. Harmondsworth: Penguin.

Cohen, L. and Manion, L. (1995). Research Methods in Education. London: Routledge.

Daly, M., C. (2007). 'GVP, Exploration & LTR', in Geological Society BicentenaryConference2004,London.Availableat:http://www.bp.com/genericarticle.do?categoryId=98&contentId=7037773#top.[Accessed14<sup>th</sup> August 2009]

Deffeyes, K., S. (2003). *Hubbert's Peak: The Impending World Oil Shortage*. Princeton: Princeton University Press.

Deffeyes, K., S. (2005). *Beyond Oil: The View from Hubbert's Peak*. New York: Hill and Wang.

Della Porta, D. and Diani, M. (2006). *Social Movements: An Introduction*. 2<sup>nd</sup> Edition, Oxford: Blackwell Publishing.

 Department of Energy and Climate Change, (2009). 'The UK Low Carbon Transition

 Plan'
 [online].
 Available

 at:<u>http://www.decc.gov.uk/en/content/cms/publications/lc trans plan/lc trans plan.aspx</u>
 [Accessed 12th July 2009]

Diamond, J. (2005). *Collapse: How Societies Choose to Fail or Succeed*. 1<sup>st</sup> Edition, New York: Penguin Group.

Friedmann, J. (2005). Globalization and the emerging culture of planning, *Progress in Planning*, 64: 183–234.

Griffiths, J. (2009). 'The Transition Initiative: changing the scale of change', The OrionMagazine,July/AugustIssue.Availablehttp://www.orionmagazine.org/index.php/articles/article/4792. [Accessed 10th July 2009]

Heinberg, R. (2004). *Powerdown: Options and actions for a Post-Carbon World.* Forest Row: Claireview Books.

Heinberg, R. (2005). *The Party's Over: Oil, War and the Fate of Industrial Societies.* 2<sup>nd</sup> edition, Gabriola Island: New Society Publishers.

Hirsch et al. (2005). 'Peaking of World Oil Production: Impacts, Mitigation, & RiskManagement'.Availablehttp://www.netl.doe.gov/publications/others/pdf/oil peaking netl.pdf[Accessed 19thAugust 2009]

Holstein, J., A. and Gubrium, J., F. (2004). *The Active Interview,* In: D. Silverman. Eds. *Qualitative Research: Theory Method and Practice.* 2<sup>nd</sup> Edition, London,: Sage Publications Ltd.

Hopkins, R. (2006a). *Energy Descent Pathways: evaluating potential responses to Peak Oil*, MSc Dissertation, University of Plymouth: Devon.

Hopkins, R. (2006b). Why the survivalists have got it wrong', Transition Culture.org 4<sup>th</sup> September 2006 [online]. Available from: <u>http://transitionculture.org/2006/09/04/why-the-survivalists-have-got-it-wrong/</u> [Accessed 12th July 2009]

Hopkins, R. (2008a). *The Transition Handbook: From Oil Dependency to Local Resilience*. Totnes: Green Books.

Hopkins, R. (2008b). "A Rocky Road to Transition": A Review', Transition Culture.org, 15<sup>th</sup> May 2008 [online]. Available at: http://transitionculture.org/2008/05/15/the-rocky-

road-to-a-real-transition-by-paul-chatterton-and-alice-cutler-a-review/. [Accessed 12<sup>th</sup> July 2009]

Hopkins, R. (2008c). 'Responding to Various Critiques of Transition', Transition Culture.org, 15<sup>th</sup> September 2008 [online] Available at: <u>http://transitionculture.org/2008/09/05/wading-through-various-critiques-of-transition/</u>. [Accessed 13th June 2009]

Hopkins, R. (2009a). 'A Transition Training Day with Somerset County Council', Transition Culture, 24<sup>th</sup> April 2009 [online]. Available at <u>http://transitionculture.org/2009/04/24/a-transition-training-day-with-somerset-county-</u> <u>council/</u>. [Accessed 10<sup>th</sup> May 2009]

Hopkins, R. (2009b). 'A Transition Take on the UK Low Carbon Transition Plan', Transition Culture.org, 17<sup>th</sup> July 2009 [online]. Available at: <u>http://transitionculture.org/2009/07/17/a-transition-take-on-the-uk-low-carbon-transitionplan/</u> [Accessed 10<sup>th</sup> July 2009]

Hopkins, R. and Lipman, P. (2009). *Who We Are And What We Do,* Totnes: Transition Network Ltd.

Hoyos, C. (2008) 'Running on empty? Fears over oil supply move into the mainstream', *The Financial Times*, 19<sup>th</sup> May.

Hubbert, M., K. (1956). Nuclear energy and the fossil fuels, *Drilling and production practices*, *American Petroleum Institute*, 95: 7-25.

Hubbert, M., K. (1971). The Energy Resources of the Earth, *Scientific American*, 225(3): 60-70.

International Energy Agency (2009) 'Oil Market Report'. Available at: <u>http://omrpublic.iea.org/currentissues/full.pdf</u> [Accessed 28th June 2009]

Lerch, D. (2007). *Post Carbon Cities: Planning for Energy and Climate Uncertainty*. California: Post Carbon Press.

Local Government Association (2009.) *Volatile times - Transport, climate change and the price of oil.* Available at: <u>http://www.lga.gov.uk/lga/aio/1335142</u> [Accessed 20th August 2009]

Lomborg, B. (2001). *The Skeptical Environmentalist: Measuring the real state of the world.* New York: Cambridge University Press.

Lynch, M (2003). The New Pessimism about Petroleum Resources: Debunking the Hubbert Model (and Hubbert Modelers), *Minerals and Energy - Raw Materials Report,* 18(1): 21-32.

Malcolm, A. (2009). *Strategies for Local Government and Sustainable Communities* [online]. Available at: <u>http://www.alexmalcolm.co.uk/Sustainable.pdf</u> [Accessed 2nd July 2009]

Maunsell Aecom, (2007). *Climate Change and Energy Taskforce-Final Report*. Available: at:

http://www.brisbane.qld.gov.au/bccwr/plans and strategies/documents/summary intro c limate change energy taskforce report.pdf. [Accessed 19th August 2009]

Miller, J. and Glassner, B. (2004). 'The "inside" and the "outside": finding realities in interviews', in Silverman (2004) *Qualitative Research: Theory Method and Practice*, 2<sup>nd</sup> Edition, London, Dehli, Thousand Oaks: Sage Publications Ltd.

Miller, G. and Fox, K., J. (2004). 'Building Bridges: The possibility of analytical dialogue between ethnography, conversation analysis and Foucault', In: D. Silverman. eds. *Qualitative Research: Theory, Method and Practice.* 2<sup>nd</sup> Edition, London: Sage Publications Ltd.

Monbiot (2003). 'Bottom of the barrel- The world is running out of oil, so why do politicians refuse to talk about it?', *The Guardian*, 2<sup>nd</sup> December.

Monbiot (2009). 'We spend millions on smallpox, but nothing on this far greater threat', *The Guardian*. 14th April.

Newman, P. (2007). 'Beyond Peak Oil: Will Our Cities Collapse?', *Journal of Urban Technology*,14(2):15-30.

Newman, P., Beatley, T., and Boyer, H. (2009). *Resilient Cities: Responding to Peak Oil and Climate Change.* Washington: Island Press.

Odum. H., T. and Odum, E., C. (2001). *A Prosperous Way Down: Principles and Policies.* Boulder: University of Colorado Press.

 Oil Depletion Analysis Centre (2008). 'Preparing for Peak Oil Local Authorities and the

 Energy
 Crisis'
 [online].
 Available
 at:
 <u>http://www.odac-</u>

 info.org/sites/odac.postcarbon.org/files/Preparing for Peak Oil.pdf
 [Accessed 18th June

 2008]

Oil Drum: Europe (2009). 'Interview with Colin Campbell' [online]. Available at: <u>http://europe.theoildrum.com/node/5315</u> [Accessed 25th August]

O'Rourke, R., S. (2008). *Transition Towns: Ecotopia Emerging? The role of Civil Society in escaping Carbon Lock-In,* MSc Thesis, The London School of Economics & Political Science: London.

Pruijt, H. (2003). Is the Institutionalization of Urban Movements Inevitable? A comparison of the Opportunities for Sustained Squatting in New York City and Amsterdam,. *International Journal of Urban and Regional Research*, 27(1):133-57.

Quist, J. and Vergragt, P. (2006). 'Past and future of backcasting: The shift to stakeholder participation and a proposal for a methodological framework', *Futures*, 38(9): 1027-1045.

Relocalization.net (2009). 'What is Relocalization?' [online]. Available at: <u>http://www.relocalize.net/about/relocalization</u> [Accessed 17th August 2009]

[65]

Savinar, M., D. (2004). *The Oil Age is Over: What to Expect as the World Runs Out of Cheap Oil 2005-2050*. New England: Morris Publishing.

Seale, C. (1998). *Researching Society and Culture*. 1<sup>st</sup> Edition, London, Dehli, Thousand Oaks: Sage Publications Ltd.

Seale, C., Gobo, G., Gubrium, J., F. and Silverman, D. (2007). *Qualitative Research Practice*, London, Dehli, Thousand Oaks, Singapore: Sage Publications Ltd.

Seyfang, G. (2009). Green Shoots of Sustainability: The 2009 UK Transition Movement Survey [online]. Available at: <u>http://transitionculture.org/wp-content/uploads/green-shoots-of-sustainability.pdf</u>

Skrebowski, C. (2004). Oil Fields Mega Projects, Petroleum Review, January 2004.

Silverman, D. (2005). *Doing Qualitative Research*, Sage Publications Ltd: London, Dehli, Thousand Oaks.

Somerset County Council (2001). 'Community Learning Partnerships Prospectus' [online]. Available <u>http://www.six.somerset.gov.uk/somhtml/650/somweb/strategic\_plan/clpp4.htm</u> [Accessed 12th August 2009]

Somerset County Council (2008). 'Responding to Climate Change in Somerset' [online]. Available

from:<u>http://www.somerset.gov.uk/somerset/ete/countryside/climatechange/index.cfm?ove</u> <u>rride=subtopic&infoid=7031</u> [Accessed: 14<sup>th</sup> August 2009]

Somerset County Council (2009). 'Somerset- The first Transition Authority' [online]. Available <u>http://www.somerset.gov.uk/somerset/ete/countryside/climatechange/index.cfm?override</u> <u>=subtopic&infoid=7907</u> [Accessed 14<sup>th</sup> August 2009] Strahan, D. (2007). *The Last Oil Shock: A Survival Guide to the Imminent Extinction of Petroleum Man*. London: John Murray.

The United States Conference of Mayors (2009). U.S. Conference of Mayors ClimateProtectionAgreement[online].Availablehttp://www.usmayors.org/climateprotection/agreement.htm[Accessed 25th August 2009]

Tsoskounoglou, M., Ayerides, G., and Tritopoulou, E. (2008). The end of cheap oil: Current status and prospects, *Energy Policy* 36(10): 3797-3806

Transition Somerset (2008). Transition Somerset meeting with SCC – December 8th2008[online].Availableat:http://z6.invisionfree.com/SustainableFrome/index.php?s=9e0b93b4c6bae865878e26c76e1fc003&act=Attach&type=post&id=5431489[Accessed 6th June 2009]

Transition Towns Wiki (2009). Transition in Somerset [online]. Available at: <a href="http://transitiontowns.org/Somerset/groups">http://transitiontowns.org/Somerset/groups</a> [Accessed 18th August 2009]

Tewdr-Jones, M. (2002). *The Planning Polity: Planning Government and the Policy Process*. London: Routledge.

Vidal, J. (2005). 'The end of oil is closer than you think', *The Guardian*, Thursday 21<sup>st</sup> [online]. Available at: <u>http://www.guardian.co.uk/science/2005/apr/21/oilandpetrol.news</u> [Accessed 27th June 2009]