

Energy Descent Action Planning for Hepburn Shire

Final Report October 2011

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1. OVERVIEW

Holmgren Design Services undertook a consultancy for Hepburn Shire between April and October 2011 to assist the ESAC¹ to develop a pathway for an Energy Descent Action Plan.

The world has passed the peak in oil supply making petrol and oil-derivatives more expensive. With no easily scalable alternatives of comparable cost to substitute for cheap oil, every aspect of the economy and society is changing in predictable and unpredictable ways. The ongoing global financial crisis is one major predicted consequence of peak oil.

Climate change is already impacting our communities and is predicted to increase with or without international agreements.

Energy Descent is recognised as a term describing a range of futures with less energy, more unstable climates, a reversal of globalisation and contracting economies over many decades if not centuries.

Localisation is the process by which more expensive and less reliable transport and travel will lead to growth in small-scale local economies. This is widely agreed to be the most likely consequence of energy descent.

Re-localisation recognises that local, especially rural communities have the past experience, motivation and skills to turn the problems of energy descent into solutions.

Resilience is the ability to survive and rebound from shock and change. In energy descent futures, resilience replaces efficiency as the most important characteristic driving re-localising economies.

Within Hepburn Shire many people informed by environmental and social ethics are already organising their families, properties, work and finances in ways that will be advantageous in energy descent futures. Many others maintain traditional and resilient patterns of life and work that are key assets for energy descent. Energy Descent Action Planning {EDAP} draws together these diverse actions for more secure communities based on locally available resources.

1.1 *the consultants*

David Holmgren is internationally recognised as the co-originator of the permaculture concept that underpinned and informed Energy Descent Action Planning and the Transition movement. His more recent Future Scenarios work is continuing to inform how communities and local governments around the world plan for energy descent.

This consultancy was an opportunity to explore more effective ways to plan for energy descent by building on the critical mass of local people, projects and activism that could

¹ Environmental Sustainability Advisory Committee

be seen as the building blocks of more conscious energy descent action planning.

David was assisted by Ian Lillington to run the workshop, edit the earlier reports and compile this report. Ian brings experience from local and overseas transition groups, as well as teaching about energy descent in educational institutions.

We have been influencers, co-participants and observers of EDAP and Transition developments elsewhere and have incorporated our learnings in the discussion papers and this final report. We see many possibilities for pathways from here; what is certain is that they won't look like existing models. The 'Hepburn Model' already is unique.

Although this consultancy may have raised as many questions as it has answered, its usefulness to the ESAC and Hepburn Shire Council are by no means limited to the work done so far. In particular, the longer discussion paper which distills the substantial pro-bono component of this consultancy is likely to see further revisions and be circulated locally as well as internationally. From past experience, this is certain to lead to interest and requests for information on how the Hepburn EDAP is progressing.

There is no commitment from either the consultants or Hepburn Shire to being part of an on-going funded relationship, but what is certain is that the consultants will be applying the lessons learnt through this process, both locally and further afield. David has already been asked to make presentations on EDAP including to an upcoming MAV conference².

1.2 Components of the consultancy

1.2.1 Reports

This report needs to be read in conjunction with the two reports already presented before the September 3rd workshop. For Hepburn Shire to really be at the cutting edge of EDAP it is necessary to take the time to fully digest the influences of the global permaculture and transition experiences that are contained in the previous reports.

1.2.2 Future Scenarios Presentation

In July, David presented some scenarios, refined over 6 years and using local context, which painted pictures of the future and aimed at taking the group beyond the glut of written information and ***to engage with the future as if it were reality***. David will certainly be using this new stage in the future scenarios work and as an opportunity to help spread awareness and preparedness for energy descent through community organisations within the Hepburn Shire.

1.2.3 Workshop, September 3rd – described in more detail below at section 4.

² See MAV website for program <http://www.mav.asn.au/events/Pages/Building-Community-Resilience-and-Minimizing-Risk-23112011.aspx>

1.3 Criticisms of the consultancy

The big picture task in the consultancy was to draw together a clear articulation of Energy Descent and Energy Descent Action Planning, so that different views have some central reference point. The reports [11 pages and 66 pages] produced in August 2011 received some appreciation but also criticism that they were not specific enough. Our general points in response are:

1. EDAPs that we have as models from elsewhere are few, and they are untested over any substantial time period. It is not possible to recommend adopting any existing model, rather, we believe we are working on a new "Hepburn Model".
2. The historical evidence suggests strongly that the continuing conditions of economic growth in Australia are very unfavourable to "EDAPing" as a community-wide process, because most people and organisations are focused on business as usual growth scenarios {BAU} rather than on longer term planning for an energy-constrained world.
3. So, although what we are working on here is crucial longer term planning, the "Hepburn Model" - of a council-initiated process overlaid on the diverse conscious and unconscious examples of EDAP within the community - has yet to be recognised as important except by a relatively small group within Council and the community.
4. The longer [66 page] report gives a deeper explanation of the 'whys and hows' of our strategy of developing an "EDAP lens" to:
 1. identify existing examples of EDAP,
 2. check the "EDAP status" of proposed projects and options,
 3. guide implementation of projects at multiple levels by multiple actors (including awareness raising by stakeholders and communities)

In this consultancy we set out to create some shift from the consensus BAU even at the risk of negative reactions. We believe the Levels and Domains we have described provide the skeleton of an EDAP process that might be useful but it needs to be further tested for utility by those trying to do EDAP at the personal, household and perhaps enterprise level before launching into community-wide testing. The September 3rd workshop was a good start at testing. Next steps are suggested in the Recommendations section.

2. LOCAL GOVERNMENT CONTEXT

Several Local Governments around Australia have engaged with the Transition or Energy Descent Planning 'movement'. EDAP fits well with many parts of local government core business. Major changes in both staff and Councillors at Hepburn Shire Council since 2008 have opened the way for more innovative community-based responses to discussing energy descent and related issues. These changes include:

- 2.1 Council's Climate Change and Peak Oil resolution of 2009 signaled the beginning of a more formalised response, and Hepburn Shire Council's participation in the MAV's pilot project³ [to get Councils up to speed on Peak Oil and Transition Initiatives] has provided a basis for more informal liaison and co-operation between Council and Hepburn Relocalisation Network (HRN).
- 2.2 Council's decision to create the Hepburn Shire Environmental Sustainability Advisory Committee broadened and formalised this blend of top down and bottom up capacities. With membership from the community, Councillors and key staff, the committee has the capability and responsibilities relevant to the broad scope of Energy Descent Action Planning. The responsibility of the committee is to both provide advice to Council on a broad range of environment and sustainability related issues as well as facilitate a community-created Energy Descent Action Plan.
- 2.3 The resources (human and financial), that Council has allocated to this hybrid process indicates its faith in the community to be the driver in creating a better future. The challenge for the committee is that the concepts of energy descent are so new. Consequently, there is a steep learning curve and a natural resistance to change, common to all organisations. Everyone involved has to take on the challenge of defining the scope and nature of the problem and the response that will best contribute to more resilient Hepburn Shire communities facing the threats of climate chaos, energy and resource depletion, economic contraction and geopolitical instability.

3. THE COMMUNITY CONTEXT

Hepburn Shire stands on the edge of this hybridisation [of the grass roots and the public policy aspects of Transition activism] in a number of ways. This hybridisation is important, pioneering, and at times, difficult. It involves working with many groups including:

1. Hepburn Wind, the first community-owned wind farm in Australia that has raised the national profile of Hepburn Shire as a place of community and environmental innovation.
2. SHARE – Sustainable Hepburn Association [the Shire-wide sustainability group] – an incorporated not-for-profit membership organisation. SHARE ran the recent Transition training led by Central Victorian trainer Jacinta Walsh, which has increased the number of local people who have participated in this process and led to an interest in the possibility of a formal Transition Initiative in the area.

³ Councils and Communities In Transition – workshops run by Andrew Lucas in Hepburn Shire

3. HRN - Hepburn Relocalisation Network, which has operated without formal structure since 2006. HRN organises a range of events and initiatives to educate and catalyse community action for Energy Descent. HRN's strategy is to encourage "Transition" by:
 - a. helping those already moving on the energy descent pathway to be better informed and targeted in their personal, household and community actions;
 - b. collaborating with other more formal local groups such as SHARE;
 - c. influencing Council decisions and policies to at least limit actions that prevent the spontaneous self reliance in the community, and at best encourage and support energy descent adaptation by the community;
 - d. educating themselves: HRN members attended the first Transition Training weekend run in the shire at the Ashram (Feb 2009) held for transition activists around Victoria.

4. Daylesford Community Food Gardeners – have mustered community enthusiasm over the last 12 months and have focused on getting food plants in the ground. They have achieved well-established productive gardens next to the Daylesford Library and an orchard established at Rea Lands Park. Council's quick response to the Garden Group's requests and tolerance, at least, of getting fruit trees into Rea Lands Park and veggies at 33 Albert St (next to the library) is an encouraging indication that Council and community can work together on EDAP-friendly activities.

4. THE 3rd SEPTEMBER WORKSHOP

At the Workshop on 3rd September, we were seeking an opportunity for as many members of the ESAC as possible to be present for a few hours to explore what could be achieved. The Saturday morning option allowed about 75% representation, and the 'bring a friend' option allowed more people to participate.

4.1 Using A Grid Table And Indicator Approach

The 22 EDAP Indicators are illustrated at 4.2.2 below. Along with the more extensive documentation on the Characteristics in the longer discussion paper, these form a major contribution to the development of "criteria" to assess both existing examples and potential projects/actions. These 22 Indicators are a starting point informed by consultation, knowledge and experience, and we imagine that some will be added, deleted or changed as the EDAP Working Group test-drives them further.

Following the Future Scenarios presentation in July we asked the ESAC committee members to test this structure for themselves. We provided an example of a completed table to stimulate thinking (with a slightly modified example as appendix B in the larger discussion paper); and we ran this exercise again in the 3rd September workshop.

4.2 Grouping and organising potential actions

In the first half of the workshop, we asked participants to plot various ideas on grids on A4 sheets of paper. We used these grid exercises as a way to 'switch on' holistic thinking, showing how different energy-descent actions could be placed on x and y axes in the grids.

Eventually we got to make comparisons of Energy Descent Actions versus EDAP Indicators and to make other comparisons such as short or long term actions versus domains of action, by using colour to add a third dimension. The results of that exercise are shown in the table on the next page [4.2.1]. The classification shown in the table was on-the-spot responses that need refining in the context of more detailed consideration of each action.

These are real life examples and some of the items in this table could be starting points for the EDAP Working Group's activities over the coming months.

4.2.1 Domains, Levels and Classes of EDAP

7 domains [across] x

5 levels of increasing scale and complexity [down] x

3 classes of action [colour]

- black = short term – can be started now for quick returns
- blue = longer term – can start now but returns come later
- red = comes as a result of seizing an unexpected opportunity, perhaps as result of crisis

	Land & food	Buildings & infrastructure	Technology transport & communications	Education and culture	Health & Spiritual well-being	Finance & economics	Governance & land tenure
1 personal, household & family	Year round food production Food storage CSA Plus Supplies of yeasts	Wood stove	Fix bike	Learn Mandarin Take a course at neighbourhood centre Read more Community education/c childcare	Stay physically fit Stay mentally engaged Grow herbs and medicinal plants	Invest in food ... storage Barter	Security with neighbours Better occupancy rates of house - family/tenants/boarders
2 community	Twice weekly farmers markets. Mapping of skills, plants, knowledge	Sustainability Homestead at High School	Local internet CB Network	Save and increase local knowledge			
3 local business	Tree planting Large scale compost making Whole food collective	Salvage business; eco-building			Eco-aged care facility		
4 region, local gov			Daylesford railway; Renewables grid				
5 state gov	Strategic collaboration Purchase of local food	Road side reforestation	Lower state speed limits	College of sustainable design	Encourage nature based attitudes		Modify regulations Drop regulations

4.2.2 Test run of indicators analysis at 3 September workshop

The next part of the workshop was to test some ‘Common Sense’ Indicators. These 22 indicators [of Energy Descent Resilient communities] had already been circulated ahead of the workshop. They are distilled from permaculture⁴, transition and resilience literature and activism. [Template below and results table on next page. See also Appendix B for Energy Descent Action Planning Template].

TEMPLATE

EDAP Indicators – choose an action [eg ‘taking in a boarder’ or ‘generating energy from forest waste products’] and give it a rating from 0 [no benefit to EDAP] to 3 [high benefit to EDAP].

Your chosen subject _____

EDAP INDICATOR	SCORE 0,1,2,3
1.Relocalisation (goods, services and employment).	
2.Growth of household & community economies (exchange and gifting)	
3.Increased household size (sharing, extended families, boarders and co-ownership)	
4.Storages (essential goods & resources at household, business, farm and community scale)	
5.Garden agriculture & livestock raising (central element of most households).	
6.Local seasonal food (central theme in renewed culture of place)	
7.Growth in Sustainable use of renewable energy & resources	
8.Redevlopment of basic skills (of maintenance, repair and manufacture)	
9.Diversity of sources of basic needs (food, water, shelter, transport & communications)	
10.Diversity of income sources & active cash economy	
11.Reduction in debt levels	
12.Durability and quality (in construction and infrastructure)	
13.Flexible & opportunistic use of waste (from less efficient systems)	
14.Small scale & incremental solutions (that can be easily replicated)	
15.Relative increase in preventative & complementary health practices	
16.Experimentation & innovation (with acceptance of failure as a learning process)	
17.Devolving responsibility & sharing power (to encourage spread and replication).	
18.Shift from dependent consumption to responsible contribution	
19.Elders actively engaged in education & planning	
20.Consolidating family & personal relationships around a geographic base	
21.Children as capable & engaged participants in household and community activities	
22.Time with people & nature replacing time with media (text, mass media & internet)	

⁴ Permaculture design principles have been refined over many years and are still developing. One of the ways they have evolved is to become the common sense principles of the transition movement.

Each person chose an action/project and rated it using 22 indicators, to get a 'quick look' at whether the action was EDAP friendly. 0=no value, 1=low value, 3=maximum score, so the best action could get 66 points.

It also tested whether we had chosen a useful set of indicators. Some actions could have been expected to score more highly and suggest that the indicators didn't capture the whole picture, but our own scoring suggests some of this "inaccuracy" is due to variation in understanding of the indicators (and potentially personal bias on the action/project). In any case we believe these indicators can be refined based on this and further testing but this was beyond the scope of the consultancy.

Action/Project	Participant score	Consultant score
Create a Village square	5	10
Local renewable grid	17	26
Take in a Lodger [not helpful and friendly]	19	30
Small-meal-less-cost option at restaurant	19	13
Fix bike	20	25
Keeping chooks	28	35
Road side food tree planting	38	35
2 electric minibuses making free trips around shire	39	29
Sustainable harvest of local wood for local use	39	40
Farm Eco-Aged care facility	41	41
Lodger [helpful and friendly]	46	44
Food preserving workshops	54	48
Sustainable school homestead	56	48

As with table 4.2.1, many of the suggestions here are real life examples and could be starting points for activity by the EDAP Working Group or projects where the EDAP Working Group could assist others to get the project under way.

4.3 Second half of Workshop

After the break [with great local food from Spade to Blade ☺] we divided into three groups and addressed the following questions from the brief:

	Subject	Resource person
Group 1 "WHAT"	W1 Define the pathway for the development of an EDAP W2 Agree on the core components of a project plan for developing an EDAP	David
Group 2 "HOW"	W3 Map or define a participatory model of community engagement in energy descent planning and implementation	Ian
Group 3 "WHO"	W4 Identify roles and responsibilities the ESAC should play in the facilitation and development of the EDAP	Jill

4.3.1 Reports from the three groups

Group 1 - **What** are the next steps?

- discovery
 - map what's happening
 - clarify criteria and weighting for filtering actions
 - ideas from other communities
 - research [quantitative/qualitative]
 - self discovery
 - small presentations to 'ordinary' people with things they can apply at household level

- promotion and learning [activities]
 - how does community find out about this?
 - there is relevant stuff out there, but don't expect it to be labeled as transition
 - Workshops could be run for others, to highlight transition approach especially the 12 steps
 - Make use of Communication options via other groups e-networks
 - launch the food survey
 - make use of Hepburn shire web page on – create/update material on edap/transition
 - Develop scenarios, stories that build the communication and celebrate new models
 - what about people who don't want their 'great' work to have spotlight? [grey economy – people in the grey economy are doing stuff that can help us communicate about transition with ordinary people – but what if the best examples are technically illegal?]

- enabling – remove barriers – barriers are both **policy** and **attitude**;
 - sharing resources
 - re-defining models
 - ways to credit 'carbon farming' activities;
 - look at setting up a transition innovation fund – eg with money from Hepburn Wind, Bendigo bank, Council? Support innovative businesses that are moving to transition. Build on models of micro finance, [but who administers fund and how to 'Keep it simple' and avoid lots of admin?
 - where does fund fit in?
 - how to make sure that people already doing it don't have their energies diverted by a new committee or structure

- Russell – recommends looking at a local genuine progress indicator/index [which is a +/- model instead of GDP]. Useful to build on the ACF consumption index

Group 2 – How to make it happen:

Overview – build on existing models, some specific examples -

- opportunities at school level – simple food preserving
- localisation 'cells' that can work in any part of shire
- language-dissent/descent; negative connotations with descent anyway; may prefer "Hepburn Community Resilience Strategy" instead of EDAP
- Branding – Identify common language; 'edap' not good, 'resilience' is ok – choose 40 words that reinforce the 'story'
- get input from a behaviour change psychologist
- Make sure this plan dovetails with Hepburn Shire strategies
- Develop criteria for actions and work on ways to make ideas easy to get in to action as they are already part of the language and activities of schools, footy clubs etc.
- work with other groups who are aligned;
- patron or spokesperson – approach members of community [overlap with SHARE recruiting business people]
- working groups on specific areas of expertise and to develop projects;
- resilience awards – for groups
- when this plan goes to the community make it clear that it is inviting discussion process for next steps - not enough time

Group 3 - Who will make this happen – identify roles and responsibilities

ESAC – general, strategic planning, with the EDAP Sub committee reporting to the ESAC but gets comment and roving participation from ESAC.

- Use stuff done in last 12 months – eg Russell's Project plan, SWOT analysis and ToC done for an EDAP.
- Sees the need for a written Plan but also working on planning and projects as the plan is developed.
- Recruit experts from Council and community and get other residents involved in specific sections of the EDAP. The 'bring a friend' model has worked well.
- 'selling' the transition project – 7 Councillors are 'champions' of transition concept; each takes a theme
- 12 months for this ESAC still to run, then what? Expect the need to keep a EDAP group going. [Sec 86 committee was raised since the workshop]
- Communication plan – will be needed. See Group 2 ["How"] above
- Celebrate what already happening
- Resources – business plan for human and financial resources to be researched

5. INDICATORS

This list was 'tested' at the 3rd Sept workshop. It is intended to be a set of criteria to be applied to any action or proposal to test if resilience will be increased.

Localisation replacing globalisation as the dominant economic approach -	reducing need for movement of goods and people when providing for needs and work.
Increased household size -	through sharing, extended families, boarders and co-ownership.
Garden agriculture and livestock raising -	as an almost universal aspect of capable household economies.
Sustainable use of resources and renewable energy -	Using less in total, not generating more and more
Diversity of options for supply of basic needs for	<ul style="list-style-type: none"> • food, water, shelter, • transport and • communications.
Priority to durability and quality -	in construction and infrastructure.
Small scale and incremental solutions -	So that can be easily replicated.
Devolving responsibility and sharing power -	to encourage spread and replication.
Learning from elders -	In all situations/all aspects of life
Replacing mass media consumption -	with real contact between people.
Growth of household and community economies -	To include exchange and gifting.
Storages of essential goods and resources -	at household, business, farm and community scale.
Local seasonal food -	as a central theme in developing a renewed culture of place.
Redevelopment of basic skills -	For maintenance, repair and manufacture.
Local economy is enhanced -	Through diversity of income sources, an increased cash economy and minimizing debt.
Better re-use – [rather than simple recycling] -	Flexible and opportunistic use of waste from less efficient systems.
Experimentation and innovation -	with acceptance of failure as a learning process.
Shift from a culture of dependent consumerism -	to a culture of responsible producers.
Children involved -	as capable and engaged participants in household and community activities.

6. THE EDAP WORKING GROUP

6.1 *Who will make The Hepburn Model happen?*

We have taken it as a given that SHARE's and HRN's work over the last 5 years is well understood by the ESAC committee members. SHARE and HRN are already leading parts of the energy descent agenda in the community, but these groups recognise that they can't do it all and that a close link with a supportive Council is an excellent opportunity for more progress.

In trying to advance EDAP beyond what has already been done we suggest it is essential to be clear about who is 'driving' EDAP from here. The Hepburn Model will work if there is a strong group to ensure that Council's 'top down' approach and the community led 'grass roots' approach can be combined. In this model, Council takes the lead but there is a big overlap with the community, exemplified by the 'bring a friend' option that allowed non-ESAC members to attend David's presentation in July and the workshop in September.

6.2 *Membership of the Group*

From the workshop and discussions it seems most likely that there will be an **EDAP Working Group** of the ESAC that has a specific brief to progress EDAP. This group did comprise Jill Berry, Laurel Freeland, David Grigg and Elizabeth Hak. The terms of reference and membership of this group need to be clarified.

It is recommended that this group have a larger membership, and continue to report to the ESAC. Membership can be increased by

- [a] asking more members of the ESAC to take part in the EDAP group, and
- [b] inviting other members of the community who are interested in EDAP to become members of this working group without having to be a member of the ESAC committee.

Membership of the EDAP Working Group can be as broad as possible. The working group can choose whether to focus on a single domain [e.g. food or transport] or may choose to have small sub groups that work on different domains. New members of the working group will need to be briefed upon joining. Members of an EDAP Working Group need to recognize that this will involve more than a few meetings. It needs people who have the drive to make real transformations over a long period.

6.3 *Support for the Group*

This Working Group will need to be supported by Council's Sustainability Officer and will need to be able to access Council resources for contracting consultancy services and other services as needed. In this way, a well-resourced EDAP working group can be effective in reaching and engaging a broad cross section of the community.

6.4 Power to Act

It is recognised that this is a long-term process and that it is not all going to be done at once. But there does need to be certainty that when the EDAP working group wishes to make a recommendation or take an action it is not encumbered by a multi-layered and time-consuming approval process. In other words, the powers of the EDAP working group to act need to be defined, otherwise good work done within the ESAC could be lost/hidden or restricted by being part of a council process.

The EDAP Working Group will report regularly to the ESAC; and given the significance of energy descent, also needs to have access to the CEO on the economic, environmental and social aspects of energy descent in relation to Council's business.

6.5 Timeframe

The ESAC and an EDAP working group needs to continue beyond the current 24-month timeframe.

7. PROJECTS TO GET EDAP STARTED IN HEPBURN SHIRE

The following three proposals for projects reflect some of what is already happening and what can happen to enable Energy Descent Action Planning in the Hepburn Shire. They were identified in the Background paper (short report, section 9)

The projects have been selected to:

- Reflect existing ideas and support that which already exists in local communities,
- Materially contribute to increased resilience of local communities and economies in the face of climate change, peak oil and financial instability,
- Encourage a diversity of options for leadership and partnership to emerge between local government, businesses and community,
- Illustrate the scope and nature of three classes of EDAP planning

7.1 Hepburn Resilience Awards

A system of regular Shire-wide awards to highlight projects, people, properties, businesses and organisations that are building resilience in the face of climate change, peak oil and financial instability. This would be a low cost way to educate our communities about the need for EDAP at all levels and give status to those in our communities who are leading the way.

Awards should include cases where there is little, if any, conscious awareness of EDAP along with examples where larger scale resource, environmental and economic issues have provided motivation.

A system of awards would require:

- Refinement and testing of the resilience indicators identified in the EDAP report.
- Public information about EDAP that engages with people across the Shire.
- Benefits to recipients that support them to continue and expand their efforts
- Documentation that would encourage replication of the examples

Although this proposal might require minimal funding and give the greatest return in building awareness and action for resilience, it involves some risks requiring bold leadership. For this reason this proposal can be seen as fitting within the third class or category of EDAP ("taking advantage of crisis"). Current instability in global financial markets could (over the next year) be the fastest emerging source of new and unplanned for crisis in our local communities. By planning a system of awards that would make sense if our current economy was more like that of the US, Britain or Ireland (if not Greece) we may be able to position ourselves to avoid some of the more undesirable aspect of energy descent that continue to block any public discussion or planning for a world of less material wealth (but perhaps enhanced human capital).

Unlike the next two projects, this one cannot be done without being upfront about EDAP and celebrating people and projects in our communities that have bucked the trends of recent decades. This involves some risk of backlash against the ideal of EDAP and could highlight difficult regulatory issues around the grey economy. On the other hand, the awards offer the potential to catalyze broad support for EDAP and provide a hedge against adverse impacts of financial instability in our communities by encouraging sensible reduction in exposure to financial risk in our households, businesses and organisations at the same time that the Shire Council reduces its own exposures.

7.2 Street trees for edible landscapes ["Street Food Trees"]

Planting fruit and nut bearing trees as street trees in the towns and villages of the Hepburn Shire would be a project that could:

- Be co-ordinated and funded by the Shire Council without excessive budget challenges,
- Enlist and empower local residents, including school communities, to initiate action and be involved in growing, planting and caring for street trees outside their houses.

Historical and recent precedents for such a project include:

- The Midland Highway chestnut avenue,
- the Daylesford Secondary College chestnuts,
- Daylesford Library apple plantation,
- Spring Creek community forest plantings and
- the Council funded food orchard at Rea Lands Park, Daylesford.

The benefits of food trees as street trees include;

- Seasonal food harvest as an element in a strengthened local food culture,
- Increased use and stewardship of public space and resources by local residents,
- Create a greater sense of abundance and resilience for potential hard times.

There are other advantages. Food trees are mostly deciduous and/or limited in size and growth rate. Most are fire safe if not fire retardant. A shift towards planting food trees instead of large evergreen trees (mostly eucalypts) would maintain solar access to houses, provide more effective and cooling summer shade, reduce management to lop and fell large trees in the future, and reduce local bushfire risk.

The perception that food trees need irrigation and special management to grow and produce is not necessarily correct if:

- Species, rootstocks and varieties are well matched to soil, microclimate and particular site options including storm water runoff diversion.
- The diversity of soils and microclimatic conditions between and within our Shire's towns and villages provides opportunities for tree selection that will reflect and highlight these differences. For example deep red volcanic soils are ideal for chestnuts, walnuts and cherries in our higher rainfall towns. Clay based soils are ideal for apples, pears, quince, medlar, nashi and plums. Drier rocky soils in our more northern towns are well suited to olives and carobs.

Varying soil and site conditions could allow a set of template options that would lead to high survival and growth rates. The local knowledge of what grows well in each town/village is well-established.

This proposal can be seen as reflecting the first class of EDAP (immediate small, no regrets actions) for the following reasons.

- It can start from small beginnings and build incrementally.
- It provides community resilience benefits that do not demand engagement with challenging ideas about the future or changes in institutional or lifestyle patterns.
- It fits in with the local food theme that is an increasingly important asset for local tourist businesses.

7.3 Bathhouse Tri-generation Biomass Plant

A modern pollution and noise free mini-power station at the Hepburn Bathhouse of the type now common in Europe could:

- Use waste biomass (e.g. from pine plantations) to produce energy on site for combined heat and power (CHP) with surplus electricity fed into the grid.
- Add to the momentum created by Hepburn Wind showing that Hepburn Shire is a leader in locally-owned renewable energy.
- Reduce the risks from rising energy costs of one of the Shire's most important (and high energy using) businesses.

- Provide opportunities for public-private partnership involving local government and local businesses.
- Provide a high profile example and model of how Hepburn Shire could incrementally and sustainably produce carbon neutral energy using waste biomass from plantations and potentially, forests and farms.

Using the latest technology it is also possible to directly provide cooling [tri-generation] and even refrigeration (further increasing the efficiency of the system).

Our initial estimates suggest that very small quantities of wood would be needed to fuel the project, year-round. The fuel required to run such a plant would be no more than a few large truck loads a year (1 tonne of wood can produce 1 megawatt hour of power).

This project reflects the second class of EDAP (long term investment) mainly because these systems are not yet common in Australia and this project would involve many parties and need to address many regulatory hurdles. This is similar to the way that the innovative community ownership and moderate scale of Hepburn Wind required long term and sustained commitment. On the other hand this project is an order of magnitude less complex and requires less capital than the wind farm.

7.3.1 Building awareness of local wood as an eco-friendly fuel

Another aspect that suggests a longer planning process is the lack of awareness in the community about modern wood burning technology and its sustainability. Like the wind farm it could prove controversial for some local residents and community members, especially if not preceded by appropriate consultation and information. In Europe, this project would fit into the no-regrets category but the innovative nature in the Australian context makes it a project that will require longer-term commitment, even though the financial payback on the investment would be faster than for the wind farm.

8. STARTING POINTS FOR SHORTER AND LONGER TERM ACTIONS

Over recent decades, many people have moved to The Hepburn Shire specifically to live a “lower impact” life alongside the more conservative community who have been doing it the “old-fashioned” way for generations. There is much of value already happening in the Shire. This grass roots activity at household and community levels is both conscious and unconscious and has been happening here for decades without recognition, let alone support. Some strong examples are developed in the Case Studies in the longer report.

This gives the EDAP Working Group a number of starting points. Our recommendations for projects are in the previous section [7.1, 7.2, 7.3] and other suggestions follow in this section.⁵

⁵ see also sections 8 and 9 of short report, “Strengths and challenges of the Hepburn Shire” and

8.1 with SHARE, HRN and other existing groups, work in areas such as:

- Community education (films, presentations, facilitated sessions)
- Research (food mapping, wind flows, solar radiation, local skills)
- Community action projects

8.2 It could also – especially with SHARE and HRN - undertake some of the steps from the Totnes community development model :

- Develop framework and key tools
- Engage the community
- offer public workshops to discuss the strategies and themes from this EDAP consultation

8.3 Some members of the committee suggested some statistical research, such as: SHARE has delivered xxx projects on xxx, HRN has delivered xxx projects on xxx, the Daylesford Neighbourhood House has delivered xxx projects on xxx, the Daylesford Football and Netball Club has delivered xxx projects on xxx. This could be part of a further stage of research, though we suggest the group needs to be clear about what it will do with such research.

8.4 Some members of the committee requested suggestions on ways of connecting with more 'traditional' sections of the community, we think there is little point in doing this until the EDAP working group has tested the shared understanding and articulation of EDAP concepts and ideas in ways that can be communicated to diverse audiences.

This testing could include presentations at various community groups AGMs, holding a festival, incentives for participants etc. We recommend that the EDAP working group seeks resources to develop a program about Transition/Localisation/Energy Descent/Community Resilience, emphasising what has happened so far, and hold events, such as film nights, in many locations around the Shire to communicate this to as wide an audience as possible. Each town/locality may well want to take up the Localisation/Energy Descent/Community Resilience message and develop it in their own way. To an extent Trentham has already begun this in a distinctly different way to the Daylesford/Hepburn area.

8.5 Investigate what opportunities there are to build on what local entrepreneurs are doing. The Lake House showed leadership last year with the Joel Salatin visit that brought together farmers, restaurateurs, business people etc around creating a genuinely local and secure food supply.

8.6 The Energy Descent FAQ in Appendix A is an example of an attempt to communicate ED and EDAP and can be part of future workshops on EDAP.

"Suggestions for potential EDAP projects".

9. ENSURING SHIRE-WIDE ACTIVITY

Within the constraints of this limited work, the consultants have drawn on their personal knowledge of Hepburn and Daylesford communities to illustrate EDAP but this does not mean that there are not equally valuable examples in Creswick, Clunes, Trentham and many smaller communities that make up the Hepburn Shire. Any comprehensive EDAP process needs to identify the value of what is happening in the smaller towns, forests and on the red soils where 'small' farmers and weekenders are pioneering new farming ventures and low impact lifestyles. Further work in areas other than Daylesford and Hepburn can be part of the next step for EDAP in the Shire.

10. TERMINOLOGY/LANGUAGE

Agreeing on and using the right words is important, especially when EDAP becomes part of a more public domain.

The Working Group needs to work on this so that there is a consensus and a familiarity about "what we mean by", and so that the EDAP group members have an ability to talk about these terms in public.

At the workshop, concerns were raised about:

"Descent" – even if we accept that energy descent is happening or going to happen soon, there is a natural resistance to the word when it comes to 'selling' the ideas of 'descent = going down' to a wider public. [Also that it can be heard as dissent]

"Transition" – Some members expressed a preference for more use of the word 'Transition' others that Transition was too general a word used in many disciplines and the 'Transition movement' hasn't caught on locally in the way it has in the UK.

There are and will continue to be pros and cons around the use of;

- resilience
- localisation
- post carbon
- solar economy

Recommendations about what terms we suggest

[re]Localisation – This is the most concrete and inclusive term to describe the processes EDAP aims to achieve. Few would disagree with this as a worthwhile aim.

Resilience – This is the single most important characteristic and outcome of EDAP. It has the potential to replace Efficiency as the best yardstick to judge households, businesses, projects and policies. Most people intuitively understand the concept even if they don't use the word.

Terms that we have coined

“Domains” - seven domains [food, built environment, transport etc., taken from permaculture principles]

“Levels of action” – approximately five levels - individual, household, Council, Business, State etc.

“Classes of action” – three classes - short or longer term, or response to opportunities/crisis. These can be mapped against the 7 domains.

11. RECOMMENDATIONS

11.1 Agree On Who Takes The Lead [ref section 6 above].

We recommend that the group that takes this project forward be called, for the moment, ***The EDAP Working Group*** and should be larger than the steering group that has led the report/workshop stage of this project.

This group will have terms of reference that allow for the Sustainability Officer, ESAC members, and enthusiastic community reps who are not on ESAC to lead the Hepburn Energy Decent/Resilience model. Put another way, find the right people to have the '**Job**' of Energy Descent Planning in this community and bring them together. Some members of the ESAC are on this working group but others from the community can be on the EDAP without having to be members of the ESAC.

It is recommended that this group have a larger membership, and continue to report to the ESAC. Membership can be increased by (a) asking more members of the ESAC to take part in the EDAP group, and (b) inviting other members of the community who are interested in EDAP to become members of this working group without having to be a member of the ESAC.

The ESAC will need to discuss and agree on the details of how this happens and then to monitor that it does happen. [Refer section 6 above]

11.2 Tasks for The EDAP Working Group

We recommend that the Working Group:

Further develop the indicators and concepts [from the 66 page report], as a test of any action or proposal and to agree on what resources it needs for next steps. This can be

done by applying the indicators to the projects in section 7, and addressing how to action these items.

Further research the three project proposals, and research additional or alternative projects using the indicators and concepts to test these projects. Of the three projects suggested in section 7 of this report – 7.2 and 7.3 involve the group in finding the key people who might initiate the street trees and bathhouse projects. In contrast, the awards [7.1] would be the responsibility of the working group to identify possible award recipients, set up the structure for the first award round and plan how future rounds of awards would happen.

11.3 Workshops and Promotion

We recommend that Council promote the concept of EDAP and explain the existence of the **EDAP Working Group** by promoting discussion of the EDAP papers already presented from HDS; within Council and by extension to the community. HDS can suggest consultants for further work if required.

One way to make this recommendation happen is by running workshops. We recommend that the **EDAP working group** support groups and individuals active in raising awareness about Transition/[re]-Localisation/Energy Descent/Community Resilience to put on events such as a film showings and workshops in many localities around the Shire. This should build

11.4 Resources

We recommend that Council clarify what resources are available for the EDAP Working Group – including what is available from the budget for the current Council financial year and whether Council will initiate grant applications for additional funds as needed. The needs of the EDAP Working Group also should be provided for in future financial years.

11.5 Officer Support

We recommend that Council consider the recommendations and content of this report when appointing all staff; and especially in the appointments of the new CEO and new Sustainability Officer both of whom will need to understand energy descent planning and be able to support the EDAP Working Group. These two key posts that are currently vacant are critical to the success of EDAP

11.6 Links with and support for local community EDAP groups

We recommend that the EDAP working group considers the models of Ballarat's Backyard Bounty, and Castlemaine's Growing Abundance to provide some cross-fertilisation and look

at how these could be expanded or replicated in Hepburn Shire's town communities. The EDAP working group should discuss opportunities for funding projects run by SHARE, HRN, Community Gardeners and other sustainability groups.

11.7 Links with local entrepreneurs

We recommend that the EDAP working group investigate what opportunities there are to build on what local entrepreneurs are doing. The Lake House showed leadership last year with the Joel Salatin visit that brought together farmers, restaurateurs, business people etc around creating a genuinely local and secure food supply.

11.8 Other Roles for Council

There are at least four other areas for Council to pursue:

11.8.1 Internal - to create a Council internal risk management process as a direct response to peak oil, climate change and economic contraction. This is an internal EDAP. At first this would be a higher level risk management and governance issue perhaps using our work as a starting point.

11.8.2 External – to ensure that there is a whole-of-local-government approach to EDAP – and that leadership of the EDAP concept is carried by the CEO and Councillors. Council needs to continue to support the recommendations above so that it is possible for the ESAC/EDAP Working Group and groups like SHARE and HRN to facilitate the energy descent agenda.

11.8.3 Pro-active reporting The EDAP Working Group will report regularly to the ESAC; and given the significance of energy descent, also needs to have access to the CEO on the economic, environmental and social aspects of energy descent in relation to Council's business.

11.8.4 Council Policy Review - as policies become due for review, the EDAP Working Group needs to be able to run them through the 'filter' of how they fit with EDAP. A specific example could be Council extending its use of local food caterers (particularly those who use locally grown produce) for Council functions and events, and in particular, for Meals on Wheels (and improve the health of our older residents at the same time).

11.9 Environmental Accounting Research

It would be possible to commission some serious research in environmental accounting to provide a more objective basis to EDAP this but we have assumed that this would be too high a level function to take on at this stage of EDAP in Hepburn. This is a suggestion from the workshop (See section 4.3 above).

12 Conclusion

Understanding human-induced climate change and peak oil are powerful aids to a more planned response to energy descent, but we believe they are not essential to broadly based community support for EDAP.

Many people are already changing the way they live to spend more time at home, with family and in community for all sorts of reasons. As the rate of change accelerates there will undoubtedly be many explanations for the challenges that unfold. Some people will never accept the concept of Peak Oil and will continue to deny Climate Change. Beyond a certain point of making information available for people to come to their own conclusions, the focus on positive adaptation should override explaining the causes of the problems.

Reduced dependence on high speed and long distance transport of ourselves and our goods and services makes sense whether the cost and scarcity is caused by geological limits, 'evil actors' or punishment from God.

With some agreement about what we can realistically do in the best interests of our kids and our communities, we can build personal and household resilience, enhance our social connections and relocalise our economies by community consensus, while accepting the ambiguity of our motives and understandings of the world.

Appendix A Energy Descent F.A.Q.

Disclaimer – to talk about EDAP in 'ordinary' language, there needs to be some non-technical language and sometimes humour to help with communication. The following FAQs are an attempt to do this. It is important to note that this can be a trade-off against an intellectually rigorous piece of writing.

While it may not be appropriate to communicating Energy Descent and EDAP to all sectors, it illustrates the need for language to 'normalise' the concepts around EDAP.

Plans are useless but planning is essential. (General Eisenhower)

How can you classify Planning for the Future in a simple way?

Plan 0: She'll be right mate

Plan A: Business as usual (follow the trends)

Plan B: Backup when some obvious thing goes wrong

Plan C: Don't take anything for granted

What is Energy Descent Action Planning?

Thinking about what to do now to be prepared if things go wrong in more ways you can imagine.

Creating diverse and resilient local economies that will support strong local communities.

Prioritising future resilience over today's efficiency.

Breaking the taboo about planning for a future of less.

Creative use of what is available to meet current needs as we invest available wealth for the future.

Applying permaculture design principles to the big issues of our time.

Redefining success in an era of energetic and economic contraction.

Growing the local economy in the shade of the main economy while there is time and resources.

Spontaneous action informed by the big picture rather than managerial control focused on the status quo.

Action today that will allow individuals, households and communities to survive and thrive the manifold possibilities of energy descent.

Where did it start?

Kinsale Ireland in 2005 - by permaculture students wanting to creatively respond at the local community level to the bad news about Peak Oil and Climate Change.

How has it spread?

The rapidly growing Transition Movement that has spread around the world from the UK uses a community self-education and empowerment process to build the momentum for a broadly supported and understood EDAP.

Why is it necessary?

Risk management is part of life.

The "Limits to Growth" model has been tested against 40 years of real data and has been found to be spot on.

Globalised economy is in the early stages of collapse, local economies are heading for stressful rebirth.

Most affluent countries are already in the early stages of energy and economic contraction e.g. USA and UK.

Current wealth makes us lazy and late to change.

Energy descent futures will be as diverse as energy ascent futures over the last 100 years; scenario planning helps deal with uncertainty.

Energy descent action planning might be insurance in case Plan A and Plan B don't work. We have home fire insurance because we recognise the seriousness, not the likelihood of the threat.

Why haven't we heard about it?

Australia has so far escaped (mostly) the limits of resources because we are an energy and resources "superpower" but we have had a strong hit from environmental limits (bushfire, floods and cyclones).

Governments continue to be in denial because of fear of frightening "the markets" and the consumers. Don't expect any leadership.

The media are beholden to the advertisers and an intellectual elite that have religious faith in technology and markets.

The environment movement doesn't want to complicate the climate change message and frighten away the majority.

What are the opportunities?

The household and community economies (exchange without money) are destined to grow rapidly.

Household successes will lead to new small business at the fringe of regulation and taxation.

The most creative responses from government are at the local level because they will be the meat in the sandwich as energy descent bites but will gain most from growth in local economies.

Self employed and small business people who have practical skills that can be directly exchanged in the local community will tend to fair better than those that can only work in large organisations.

Those that produce essential goods and services will fair better than those providing optional and luxury services.

Farming and Garden Agriculture will be stronger parts of all local economies.

Waste from current affluence is already stimulating creative reuse with huge potential.

Nature has been recovering and generating new resources while we have been living from the oil well.

Older people, immigrants and rural folk who know how to live in more self reliant and communitarian ways will be valued as role models, mentors and leaders.

New media technologies bring the world to us and break the commuting trap while we relocalise.

Individuals, households and communities focused on living with less for ethical and environmental reasons have a head start and are providing new forms of leadership from the fringe.

The lesson of these pioneers are that energy descent can be exciting, empowering, enticing and even fun.

Lots of the apparently intractable problems of affluence melt away with energy descent.

As the economy of unsustainable dependencies fails, transformative personal growth becomes possible.

The field of happiness research confirms that incomes above about \$20,000 lead to no overall increase in happiness.

What if we don't like those opportunities and would rather stick with what we have?

While Australia retains a boom economy based on mining many people will be able to avoid energy descent realities.

Over time it will be harder and harder (slowly or suddenly) to maintain the old culture of entitlement.

Eventually we will have to sell our freedom (and our souls) to keep the goodies flowing.

The more generations raised in consumer affluence, the harder the fall, when it eventually happens (what goes up must come down)

What if the energy descent future doesn't happen?

We will have stronger communities and local economies less dependent on decisions made elsewhere.

Our kids will be more physically skilled, healthy, slim, confident, connected to nature and each other.

We will be resilient in the face of disaster (of whatever kind).

We will be living more lightly on the planet and not taking more than our share.

We might get left behind in a new up-scaled version of the "rat race".

We might even become workers in a tourist economy that hosts jaded city folk (mostly Chinese) searching for connection to lost nature and community. Not so bad, and better than being a centre for reprocessing fuel rods from Chinese nuclear power plants.

Appendix B: Energy Descent Action Planning Template

Classes of Action

No regrets; give benefits with or without energy descent; can be done now without major decisions/expenditure

Long term investments; substantial expenditure or effort that should return benefits as energy descent progresses

Advantage through change or crisis; risk taking during or immediately following event or crisis that leverages a larger beneficial change

Domains of Action; these are modeled on the 7 domains of (permaculture) actions.

The following examples are illustrative only to show some of the spectrum of EDAP focused at the household level but the same template could be used with a stronger focus on the personal or community aspects of the informal economy as well as a stronger focus on the formal economy of work, business, organisations and local government. By extension it may also be useful to inform larger scale national and even international action by organisations and networks.

Actions	Food production/ Land management	Built environment	Transport, Tools & Communications	Education & Culture	Health & well being	Finance & money	Governance, land tenure.
No regrets – things to do now	Plant spring veggies/collect compost materials	Maintain roof and site drainage	Start ride sharing. Get battery powered radio	Get rid of television. Celebrate seasons	Garden & bike ride for fitness	Keep cash on hand	Maintain contact with neighbours to help resolve conflicts
Long term investments	Set up food box system/ Plant nut trees/ soil testing and remineralisation	Install wood heater/ water tank/ Solar hot water & power	Join HAM radio network/ Keep stocks of bicycle tubes and tyres	Involve young children in foraging/ gardening	Consolidate family/friend relationships in local region	Buy shares in wind farm/ Downscale to get out of debt	Take in a boarder to gain experience at shared living
Responding to crises	Give away produce & preserves to neighbours	Connect uphill neighbour's roof to tank	Convert truck to wood gas	Convert critical digital information to hard copy	Using a health crisis to radically change lifestyle	Buy houses with good soil and aspect after property collapse	Facilitate squatting in unused buildings