Future Energy Planning:

Conference Outcomes

12th December 2016

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Version	Author	Date	Description of changes
V1a	James Tait	30/11/16	Final Draft for Comment
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About Ironbark Sustainability

Ironbark Sustainability is a specialist consultancy that works with government and business around Australia by assisting them to reduce energy and water usage through sustainable asset and data management and on-the-ground implementation.

Ironbark has been operating since 2005 and brings together a wealth of technical and financial analysis, maintenance and implementation experience in the areas of building energy and water efficiency, public lighting and data management.

Ironbark provides public lighting support nationally around technology advice and approvals, business cases and projects. Ironbark delivers strategic and specific advice and support for the establishment of effective environmental management systems for government and business clients. We pride ourselves on supporting our clients to achieve real action regarding the sustainable management of their operations.

Our Mission

Ironbark's mission is to facilitate progressive sustainability outcomes through practical and realistic support for council's and their communities.

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1 Glossary

DNSP	Distribution Network Service Provider
NAGA	Northern Alliance for Greenhouse Action
EAGA	Eastern Alliance for Greenhouse Action
Slido	Online Audience Interaction Poling Tool
MSS	Municipal Strategic Statement
Greenfields	Undeveloped land in a city or rural area
VPA	Victorian Planning Authority
AER	Australian Energy Regulator
DELWP	Department of Environment, Land, Water and Planning
MELF	Moreland Energy Foundation
CVGA	Central Victorian Greenhouse Alliance
BMS	Building Management System
DAPR	Distribution Annual Planning Report

2 Introduction

The Northern Alliance for Greenhouse Action (NAGA) has engaged Ironbark Sustainability to facilitate the project "Future Energy Planning", which aims to improve the collaboration between Distribution Network Service Providers (DNSP) and Local Government to work towards a more energy efficient, decarbonised and cost effective electricity system. This project consists of a half day conference and follow up workshops, which are planned to be held in March and April 2017, as well as summary reports and recommendations based on the outcomes of these processes.

The focus of this report is to assess the outcomes from the Future Energy Planning Conference held on the 25th October 2016 and provide recommendations for the upcoming workshops.

In August 2016, a project inception meeting of the project steering group was held that confirmed the timeline and agreed method for delivering the project. This confirmed that the half day conference would be held on October 25th and the planning for this would be a collaborative process between all members of the steering group. The steering group members consisted of:

- Rob Law, NAGA
- Scott McKenry, EAGA
- David Meiklejohn, NAGA
- Paul Brown, Ironbark Sustainability
- Shane Melotte, Ironbark Sustainability

Additional Ironbark support was provided by James Tait and Alexi Lynch from Ironbark Sustainability.

At the Future Energy Planning Conference representatives from each Victorian DNSP presented on the network planning process, opportunities for working with councils on new projects, and an overview of a current trial or project. After a short Q&A for the DNSP presenters, Faye Adams from Manningham City Council presented on the Doncaster Hill Precinct Energy Project. Following the presentations, attendees separated into their distribution network areas and participated in a roundtable discussion on a specific scenario that described an electricity network constraint.

2.1 Objectives

The objectives of the project as stated in the RFQ are:

"The short-term objective of this project is to:

- facilitate engagement between land use/strategic planners in the state and Local Government sectors and electricity distribution network planners.

In the medium term the project seeks to:

- share data between parties to deliver improved forecasting and more efficient infrastructure planning;
- develop resources to assist in the identification of cross sector initiatives, particularly in areas of the network that are constrained; and
- identify initiatives in each DNSP region that meet the needs of all parties and improve targeting of energy consumers for participation in energy programs (e.g. retail precincts, households)

In the long term, the changes include:

- effective cross sector initiatives are effectively scaled and replicated across DNSP regions; and
- households and small businesses are direct beneficiaries of more efficient network investment and play a greater role in collaborating on solutions to network constraints
- households and small businesses have equitable access to new products and services across the network"

Specifically, The Future Energy Planning Conference on the 25th October aimed to deliver the short-term objective of facilitating engagement between land use/strategic planners in the state and Local Government sectors and electricity distribution network planners. To set the scene and take the first step towards achieving the medium and long term objectives stated above, the conference aimed to identify the priority discussion topics for the forthcoming workshops with Council and DNSPs, that aim to enhance collaboration and planning for the future of the energy system.

3 Conference Development and Delivery

3.1 Inception Meeting

On the 24th August 2016, a project inception meeting was held with Rob Law (NAGA), Scott McKenry (EAGA) and Paul Brown (Ironbark). During this meeting, a timeline and an agreed upon method for delivering the project was developed. The method included developing an agenda which had all DNSPs giving a short presentation to the audience and all attendees participating in an activity which encouraged collaboration. A detailed explanation of the conference development is outlined below.

3.2 DNSP meetings

Ironbark met with all DNSPs over a two-week period to gain an understanding of what they believed were the main issues impeding collaboration between DNSPs and local government, along with other information including their current level of communication with Local Government. Additionally, discussions included what trials they are undertaking to deliver non-network solutions for managing network constraints, activities to improve the sustainability of the energy networks and gaining an idea on their willingness to develop detailed constraints maps.

Key findings from this process included:

Issues:

- No clear/defined internal approach to communicating with councils – The DNSPs were keen on having a list of council contacts. There is regulatory and discretionary basis for communicating. Currently, communication is very inconsistent between councils and DNSPs. When there is communication, timing often means there is limited room for innovative solutions.
- Lack of understanding of respective processes and responsibilities between DNSPs and councils
- Demand management solutions are not considered to be "mature enough" in Australia (by Jemena and Citipower/Powercor) to deliver the scale required to defer augmentation.
- Residential and commercial scale batteries currently do not address evening peak demand as they are drained before the peak is over. Network businesses need a solution where they can take control of these batteries during peaks.
- DNSPs don't get enough traction with the community when trying to recruit for new innovative models such as demand management schemes.
- DNSPs are required to only plan for "material projects" which inhibits strategic approaches to network management as infrastructure cannot be built for future projects.
- Multiple stakeholders requiring an integrated approach but not being led by anyone (except NAGA/EAGA).

Opportunities:

- All organisations were very positive about the proposed conference and follow-up workshops. DNSPs were very interested in contributing to the agenda.
- More partnerships on pilots/trials would be great for building better relationships and trialling future energy technology.

- An annual planning meeting between DNSPs and relevant councils could be very useful to provide an overview of where issues are and where they could work/plan together.
- There is an opportunity for the planning system (and potentially the building approval process) to better support the uptake of energy efficiency, demand management and renewable energy technologies that would support constrained network areas and growth areas. Policies need to ensure new development is future technology ready (eg. demand management ready BMSs in residential towers).
- Clause 19 of the State Planning Provisions encourages renewable energy but not "energy efficiency". This needs to be updated. Section 66 (Referrals) of Planning Schemes could be reviewed to improve level and timing of interaction.
- Councils are not really driving the push for alternatives to network upgrades. This is partly due to lack of awareness of network constraints and technical capacity to understand what solutions are viable.
- Councils and DNSPs have data on current projects and future growth – these could be combined geospatially to underpin better decisions and policies.

3.3 Final Agenda

The following, Table 1, is a simplified agenda for the Future Energy Planning Conference. A detail agenda can be found in Appendix 1: Final Conference Agenda.

Table 1: Simplified Agenda

Time	Presenter	Topic
9:00-9:30		Arrival/Registration
9:30-9:35	Rob Law (NAGA)	Welcome
9:35-9:50	Paul Brown	What does energy have to do with planning?
9:50-10:50	Rodney Bray (United Energy) Tom Langstaff (AusNet) Ashley Llyod (Jemena) Neil Watt (CitiPower/Powercor)	Perspectives from Victorian network planners Followed by Q and A
10:50-11:00	Break	Tea and Coffee
11:00-11:30	Faye Adams (Manningham City Council)	Experiences from the Doncaster Hill Precinct Energy Project
11:30-12:10	Facilitators	Roundtable activity
12:10-12:30	Paul Brown (Ironbark)	Summary and next steps
12:30-13:00	Break	Light lunch and networking

3.3.1 Overview of Presentations

A copy of the PowerPoint presentations can be found in Appendix Appendix 2: Presentations.

Rob Law from NAGA

Rob Law from NAGA introduced the agenda for the conference and some background information .

Paul Brown from Ironbark Sustainability

Paul Brown from Ironbark Sustainability provided some context to the conference including an introduction to the energy system, its changes and trends. He also outlined the links between DNSPs requirement to plan their networks efficiently and respond to change while Local Government aims to increase sustainability of the energy system, and their requirement to plan for the benefit of their communities.

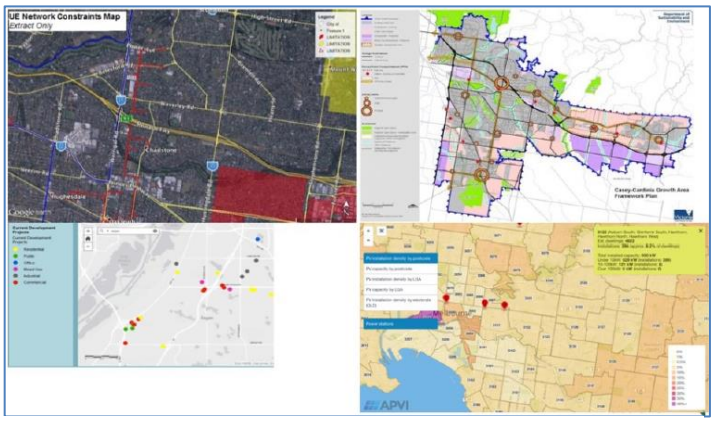


Figure 1: Examples of DNSP and council planning maps

Rodney Bray from United Energy

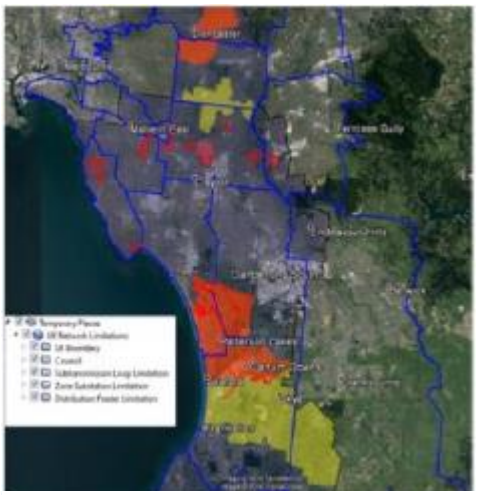


Figure 2: United Energy constraints map

Rodney Bray from United Energy introduced their constraint map during their presentation. He explained the benefit of reducing the large DAPR document into an easy to understand visualisation which can drive engagement with the broader industry and stakeholders. The presentation proposed these constraint maps could be used by councils to overlay the GIS layer on activity centres, help with demand forecasting and planning, and align network needs with smart energy precincts.

United Energy also highlighted their Summer Savers Program as an area for collaboration with councils. The voluntary Summer Savers Program is for residents within certain United Energy areas and aims to reduce peak demand on particular days throughout the year.

Tom Langstaff from AusNet Services

Tom Langstaff from AusNet Services presented on their current mini-grid trial in Mooroolbark as an approach to demand management and delivering customer and community expectations.

AusNet sees improvement in working with Local Government through developing relationships and engaging in regular information sharing.

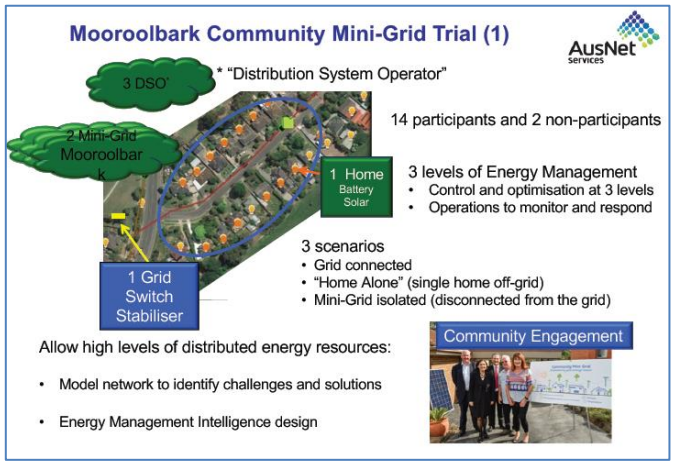


Figure 3: Mooroolbark Community Mini-Grid Trial

Ashley Lloyd from Jemena

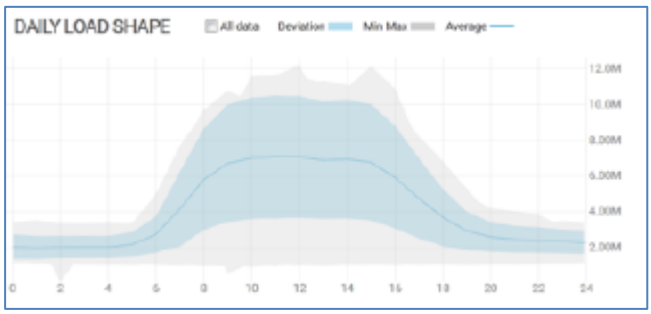


Figure 4: Example of Daily Load

Ashley Lloyd from Jemena introduced a case study of Jemena's experiences in attempting to develop a demand response program in constrained area of Broadmeadows. The program involved a level of customer engagement which aimed to gather data on their essential and non-essential energy needs, as well as whether commercial or industrial areas had back-up energy generation. Jemena's conclusion was that there was insufficient demand response available to address the constraint and no automated demand response was found.

Neil Watt from CitiPower/Powercor

Neil Watt from CitiPower/Powercor presented on their residential solar and battery trial and the data gathered to date. The trial has produced a reduction in energy imported from the grid, however has shown no reduction in peak demand on +40° days. Neil suggested that further investigation is needed into the drivers and magnitude of "peak cliff' when batteries are exhausted.

CitiPower/Powercor saw opportunities for collaboration with Local Government in addressing network constraints through assistance with demand side initiatives, future EV strategies and joint community

Figure 5: Residential Battery Storage

projects. They believe Local Government and CitiPower/Powercor can drive value for customers by early engagement to align planning for new and re-developed precincts, regular communication pathways, and aligning assets works plans.

Faye Adams from Manningham City Council

Faye Adams from Manningham City Council presented the Doncaster Hill Precinct Project which is a non-network augmentation precinct approach to energy supply. The Doncaster Hill Precinct uses a thermal energy grid for heating and cooling for buildings which has resulted in an 8.2MW reduction in peak summer demand.

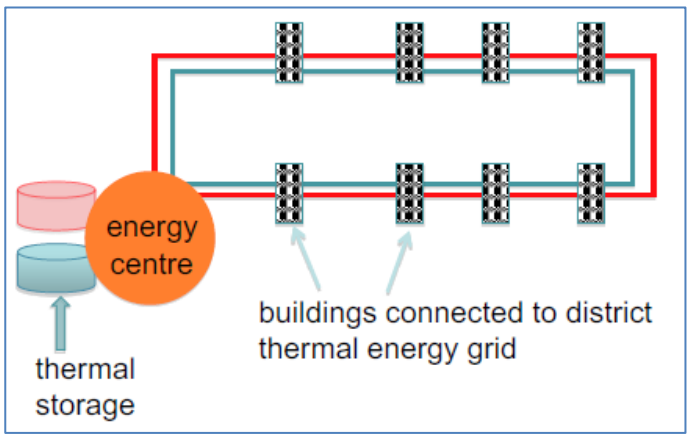


Figure 6: Doncaster Hill Thermal Energy Grid

Faye highlighted the strategic partnerships between Council, United Energy and COFELY and the clear roles, jurisdictions and accountabilities of each and the cross-sector planning involved in the project.

Faye concluded her presentation by outlining the future role of Local Government through changes to the Local Planning Policy Framework (eg: MSS), and changes to the State Planning Policy Framework (eg: Clause 19 Infrastructure)

Paul Brown from Ironbark Sustainability

Paul Brown from Ironbark Sustainability rounded out the presentations by outlining what role Local Government could play through statutory planning, strategic planning and the sharing of geospatial data. Statutory planners can advise developers to talk to DNSPs early and learn about the energy system. Strategic planners can explore opportunities for collaboration with DNSPs for future areas of growth. Local Government GIS teams can explore opportunities in integrating DNSPs constraint maps and sharing data with DNSPs. Sustainability Officers can consider how new renewable energy/demand management/energy efficiency projects might be able to work with the networks to target areas of network constraint.

Paul then introduced an activity for the roundtable discussion which aimed to enhance collaboration and planning for our future energy system.

3.3.2 DNSP Presentation Question and Answer

Below is an overview of the questions asked on the day of the conference. Because questions were asked through Slido, Ironbark, through consultation with the presenters from each DNSP, developed a complete Q and A document.

How important is it for demand mgt. programs to involve engagement professionals?
Jemena's response was that it was in their culture that all staff are expected to be able to engage with the community and stakeholders, including engineers. All DNSPs replied that it is important and they all have positions of customer engagement.

Did the customers notice the Mooroolbark min-grid system in the AusNet Services network area?
It is still early days in the trial so AusNet Services have not collected quantitative results on this question yet, but will be doing so via surveys. The solar PV has been installed to each participant, but the battery systems are only now being energised. Some customers have already expressed that they are more aware of their energy use and changing their usage patterns after the solar was installed.

Figure 7: Q & A

How many sites like the Broadmeadows example are Jemena needing to address?
About 10 this year.

Are the DNSPs sharing the learnings with other DNSPs around these sorts of programs?
All DNSPs meet on a regular basis and share information.

What is the timeframe for the DNSPs to follow United Energy lead in mapping the constraints at a detailed level?
Jemena and AusNet Services plan on releasing a constraint map like United Energy's in December 2016, CitiPower/Powercor on the other hand, plan on releasing a constraints map in late 2017.

3.3.3 Overview of DNSP Table Workshop

The objective of the table discussions was to have an introductory meeting of DNSP representatives and of councils, from within the relevant DNSP areas, to share views and identify common areas of interest. In addition, these workshops aimed to identify the priority discussion topics for the forthcoming workshops with Council and Distribution Businesses. These workshops aim to enhance collaboration and planning for the future of the Energy System.

At each table, after introductions, one of four scenarios were assessed by the group. The scenarios identified four examples of network constraints and asked the groups to identify how they would manage the constraint collaboratively. The scenarios were examples of where development is occurring in either a constrained area of the electricity distribution network or in a greenfields area (new area being developed).

Each table's discussion was guided by a table facilitator. Each facilitator was presented with detailed notes to help them guide the tables discussions. The table facilitator notes are attached in Appendix 4.**Error! Reference source not found.**

The groups were asked to consider their responses using the following areas of interest:

- Information sharing and process improvement
- Partnerships
- Policies and drivers, and
- Other.

An example table with responses is presented in Table 3. A verbatim transcript of the outcomes of the table discussions can be found in Appendix 9.4.

Table 2: Example of Roundtable Outcomes

1. Information sharing and process improvement:
• Example Responses:
  • Sharing information on where the limitations are on a consistent/formal basis
  • Ongoing communication about development approvals being granted by councils and upcoming development
  • Encouraging developers to talk to the networks about limitations on the grid
	2. Partnerships
	• Example Responses:
	  • Partnerships for delivering projects
	  • MOU for sharing information
	  • MOU for planning principals for a given area

3. Policies and drivers
• Example Responses:
  • Potential for planning policies to require higher energy efficiency or renewable energy standards in development to reduce increase load on the network.
  • State and Federal Government Policy Settings
	4. Other
	• Example Responses:
	  • Undertaking trials on Council sites and sharing information with the community

The scenarios were as follows:

Scenario 1 - Increasing Demand in Existing Constrained Area

An inner-city suburb is experiencing significant infill development ranging from townhouses to medium rise apartments and commercial. Peak demand is growing. There has also been a larger than average volume of planning permits for future development granted. The network is slowly becoming constrained and (unless there is an intervention) will at some point in the next 2 – 5 years require augmentation to meet peak demand.

Scenario 2 - Medium Rise In-fill Sustainable Precinct Development

An inner-city suburb is experiencing significant infill development of medium rise apartments and the distribution network is increasingly becoming constrained. A property developer is proposing to redevelop an old 9-hole golf course (approximately 40 Ha) into a new mini suburb in an established

area. As well as housing, the suburb will gain a primary school, community centre, two parks and a commercial precinct. The developer is interested in creating an innovative, sustainable development with an emphasis on new energy solutions such energy storage and supporting infrastructure for electric vehicles.

Scenario 3 - High Impact New Development

A proponent is proposing a new high-energy use industrial development in a constrained area of the network. The site will be manufacturing wind turbine blades and steal racking for utility scale solar PV plants. They turn up at Council for the first pre-application meeting to discuss the project. They have New Energy Jobs funding from Victorian Government grant funding for the project and have 18 months to be up and running and start creating those jobs!

Scenario 4 - Greenfields Development Planned for Regional Centre

A regional city council is planning a new growth area that is undertaking a scoping study to determine the planning principals for the area. The MSS in the Planning Scheme specifically refers to facilitating sustainable development within the municipality. The subject land has an area of 800 ha, and will accommodate approximately 30,000-40,000 new residents, include Mixed use development, and will have some dependence on a regional city. There is a potential for a new spur rail line to service the area.

4 Conference Outcomes

The outcomes from the conference were distilled and synthesised into a summary of key issues, opportunities and actions with a view towards the workshops next year. The full transcript of the roundtable discussions can be found in Appendix 9.4. It is worth noting that one table had a mix of DNSPs and no council representatives, that table has not been included in the summaries below but can be viewed in appendix 9.4. The summary that follows is broken down into distribution areas.

4.1 United Energy Area

Attendees: United Energy, Stonnington, Whitehorse, Glen Eira, Manningham, Kingston, Boroondara, Knox, Monash, AER, VPA, EAGA

Facilitators: Scott McKenry (EAGA), Alexi Lynch (Ironbark)

Priority for workshops: Collaboration on Summer Savers Program for 2017/18

Scenario addressed: 1 and 2

A summary of notes taken from the working tables are outlined below.

Table 3: Outcomes from United Energy Area Roundtable

Information Sharing and Process Improvements Information Sharing: • Overlay of constraints map for march workshop • Visibility on solar/residential for council lead • Information sharing between AER and DNSP • Early communication of increased volume of planning applications • Structured data sharing through quarterly meetings Process: • Regular meeting of customer groups of council and developer • Note that structure plans are challenging because they are 20-30 years ahead and don't guarantee land use change • Regular, formal engagement between DNSPs and LG on planning for the next 2-5-10 years	**Partnerships**: • Manningham and Whitehorse summer savers for high density residential (dual branding) • Overcome confidentiality barriers with MOU • Alignment between AER and DNSPs
Policies and Drivers: • Influencing best practise ESD in the	**Other:** • Note: UE seeing decrease in demand

planning for Clayton one land developer
• Advocating for strengthened VPP
• LG policies around Solar PV
  ○ Voluntary programs
  ○ Mandatory PV in certain areas/new developments
• VPA to request info on requirements
	but peaks are higher/ more variable
	• FYI- a model that might work re on-going collaboration – SE / Melb Water and VPA etc. (speak to Paul Cassidy)
	• Councils would like a "how to guide" for integrating energy considerations into master plans

4.2 AusNet Services Area

Attendees: AusNet Services, Knox, Manningham, Yarra Ranges, Bass Coast, Indigo, Wodonga, Maroondah, Baw Baw, University of Melbourne, DELWP

Facilitators: Jaqueline Bridge (AusNet), Tom Langstaff (AusNet)

Priority for workshops: Aligning and sharing intelligence of constraints, developments and programs between LG and DNSP. Develop relationships and engage in regular communication, and
Workshop explaining DNSPs networks, regulatory drivers, technical drivers and limitations for solar and battery

Scenario addressed: 1 and 4

A summary of notes taken from the working tables are outlined below.

Table 4: Outcomes from AusNet Services Areas Roundtable

Information Sharing and Process Improvements Information Sharing: • DAPR limitations network needs longer term outlook • Define and strengthen process for sharing information on constraints (DNSPs) and the number and type of development application (councils). • Increased communication between developer, DNSP and council • Formal process for information sharing on an annual basis Process: • Precinct vision, pre-application meeting between developer and council • Define roles and establish relationships ○ Develop contact list • Increased stakeholder engagement during	**Partnerships**: • Statutory planning and ESD within Local Government • Local Government programs and DNSPs (MOUs for specific projects) • LG and Residents (small scale energy efficiency, renewables, sustainable homes) • DNSPs and alliances (eg: NAGA, EAGA, CASBE) to have quarterly meetings • Combined council and DNSP energy strategy

the structure planning and strategic development • Pre-amendment contact with key stakeholders • On-going engagement • Planning approach to address changes in how people use energy • Planning approach has not changed over the time to address changes in how people use energy	

Policies and Drivers:
• Develop ESD policy that can be applied consistently
  ○ Smooth application process
• Long term planning
  ○ zoning
• Strategic planning aligned to state government policy
	Other:
	• Load management through ESD (industrial, commercial, residential)

4.3 Jemena Area

Attendees: Jemena, Hume, Banyule, Hobsons Bay, Brimbank, Moreland, Moonee Valley, Melbourne, Darebin, NAGA, MEFL

Facilitators: Rob Law (NAGA), Gavin Ashley (MEFL)

Priority for workshops: Aligning planning processes and improving information sharing (what and when) between Jemena and Local Government

Scenario addressed: 1 and 3

A summary of notes taken from the working tables are outlined below.

Table 5: Outcomes from Jemena's Area Roundtable

Information Sharing and Process Improvements
Information Sharing:
• Common data format
• Sharing of processes
• Strategic planning forecasting
• Sharing of research
• Transparency
  ○ What's the criteria for DNSPs to be interested in programs/trials?
• Clearer information on costs of new connections for council buildings
	Partnerships:
	• Councils, service providers and developers
	• Networking opportunities to produce efficiencies.
	• Water management a best practice model
	• Funding for innovation (eg: NEJF, demand Management)
	  ○ how does council get money to do projects?
	• Councils have good links to

• Timing is key • Accurate estimates of peak demand, Networks err on side of caution but council/proponents end up paying much more Process: • Framework of what to share and when • Develop contact list • Real-life trials valuable for common learning • Education and Capacity building for councils, what is council's role? • Opportunity for adjusting down once have data, negotiable tariffs.	business/community, networks should utilise (eg: Jemena and Broadmeadows). • Ongoing information sharing sessions with network and council would help improve demand forecasting
Policies and Drivers: • Need for high level policy to encourage future energy planning • Meetings between councils strategic and DNSPs to discuss relevant planning controls • Opportunity for referral of planning applications to energy providers (like for PTV) • Identify areas where there are aligned drivers for an innovative solution • Network could incentivise developers to work with neighbours to reduce their costs. • Utilise EVAs for funding/ incentivise developers to look at local energy solutions • Align network products with opportunities with councils • Ring fencing issues, what can/can't networks do? • There is no system to cater for energy across multiple sites eg: thresholds etc. • Opportunity for setting energy generation and/or energy efficiency targets at structure planning stage. Planners don't respond to precinct structure planning guidelines, there is no pressure to do that and networks aren't asking those questions	**Other:** • Constraints are tight road reserves which make it difficult to underground power lines and for co-located substations. • Passive design • Where is the nexus for program value to be monetised-network benefit? • Appliance control in new apartments will allow for reduced infrastructure

4.4 CitiPower/Powercor Area

Attendees: CitiPower, Powercor, Ballarat, Geelong, Bendigo, Wyndham, Macedon Ranges, Brimbank, CVGA, NAGA, DELWP

Facilitators: David Meiklejohn (NAGA), Gabrielle Breen (DELWP)

Priority for workshops: Integrated strategic planning (learning from the metropolitan water / transport sectors), and
Having key contacts on both sides.

Scenario addressed: 2 and 4

A summary of notes taken from the working tables are outlined below.

Table 6: Outcomes from CitiPower/Powercor's area roundtable

Information Sharing and Process Improvements
Information sharing:
• Data sharing
• Agreed/common outcomes
• Better understanding of the roles of different organisations and influences
• DNSP to value innovation and LGs as stakeholders
• Willing developers and DNSPs
 	
Process:
• Trigger points in non-network augmentation process
• Process for Local Government to bring DNSPs into planning at an early stage (big one)
  ○ Structure plans around LG/DNSP collaboration and planning
  ○ Increase DNSPs strategic engagement with LGs
  ○ Forecasting demand
  ○ Collaborative scenario planning
  ○ VicRoads, Melbourne Water as an example
• Develop LG/DNSP contact list
	Partnerships:
	• Conduct forums/scenarios/workshops with LG/DNSP/developers
	• An entity acting on behalf of all parties
	  ○ Formal partnership
	  ○ Equal share of investment/returns
	• Role of Alliance groups/intermediaries to get the right people in the room

Policies and Drivers: • Stricter regulations in planning scheme • Process of developer applications to DNSPs to improve transparency • DNSP price review	**Other:** • Left Blank

• Current process is not equitable	

5 Follow Up Survey

To evaluate the conference, Ironbark distributed a feedback form to all registrants of the conference. Along with questions regarding the success of the conference, attendees were asked to provide names of people within their organisation that should attend the follow up workshops to ensure the most appropriate people attend. Of the 96 attendees, we had 30 responses to the survey. The results of the follow up survey are presented in the figures below.

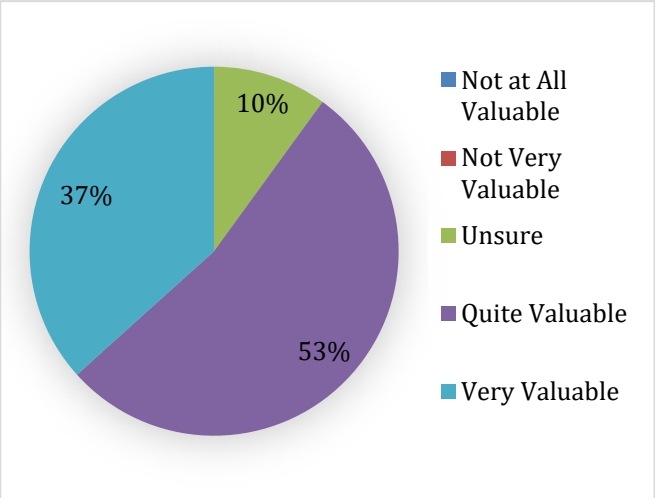


Figure 8: How Valuable Was the Conference Overall?
When asked how valuable the conference was, 90% of the respondents replied that the conference was either Quite Valuable or Very Valuable. There were no responses in the negative.

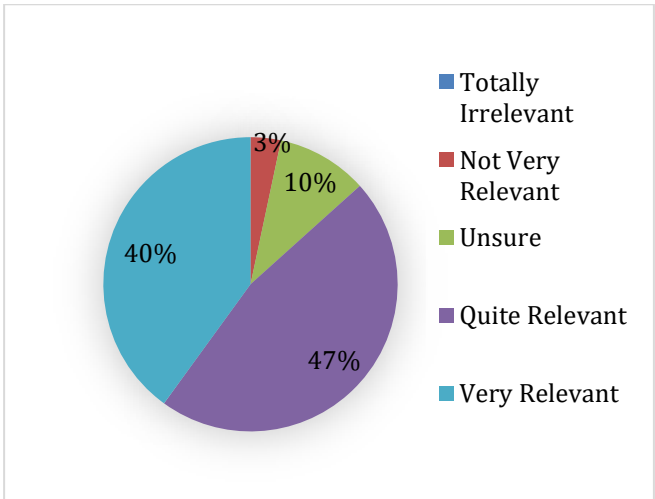


Figure 9: How Relevant were the Presentations?
When asked how relevant the presentations were, 87% of the respondents believed the presentations were either quite relevant or very relevant. Only 3% of respondents gave a negative response.

Most attendees responded that information sharing and networking between DNSPs and Local Government was the highlight of the conference (see Figure 10). This highlights the successful

approach to facilitating engagement between land use/strategic planners in the state and Local Government sectors and electricity distribution network planners which was an objective of the conference.

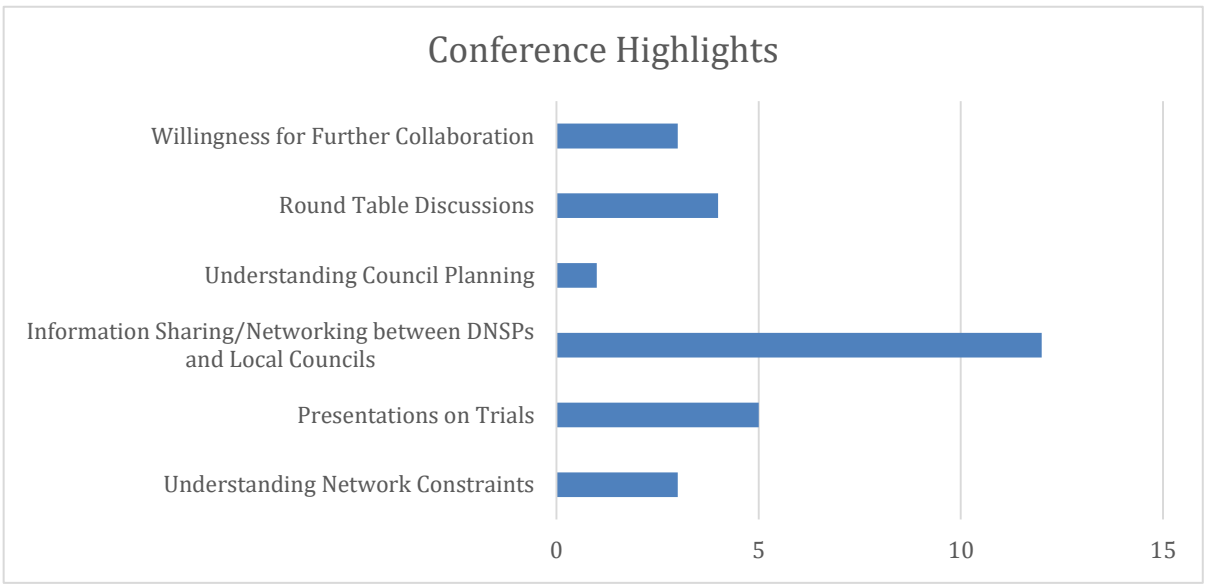


Figure 10: What were the Highlights of the Conference?

Attendees of the conference were asked what could have been improved in the conference as an open question. Figure 11 shows that there were a large variety of responses to this question, however, the most common response was that the roundtable discussions seemed rushed and the activity required much more time to complete.

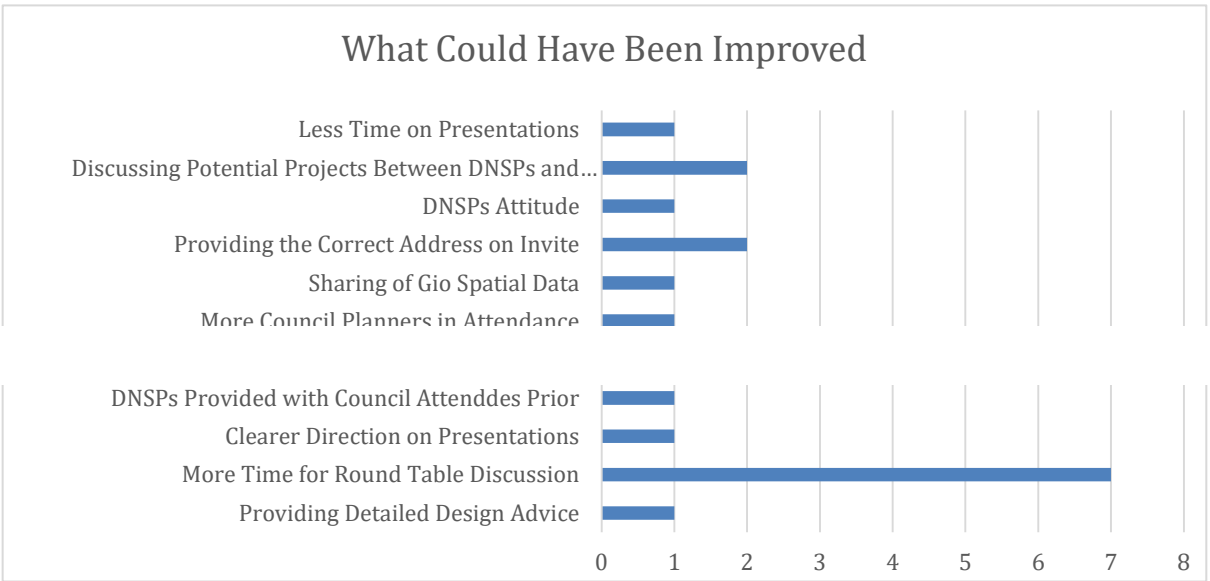


Figure 11: What could have been improved in the conference

Despite the roundtable discussions being designed as more of a prelude to the workshops, it became apparent that allowing more time for these discussions would have resulted in a more successful conference. The roundtable discussion was developed as a pivotal part of the conference in determining the content of the workshops next year and many attendees felt rushed to complete discussions on the four quadrants of one scenario, rather than the two supplied to each table. Ideally, more time for the roundtable discussion would have also given the table more time to consider what their priorities were for the following workshops. Alternatively, an activity solely focussed on the priority areas for the workshops may have fit the original timeframe.

6 Key Workshop Recommendations

In March-April 2017 it is planned that within each DNSP region a local workshop will be undertaken that addresses the items collated from the conference. The aim of this work is to identify the specific areas where councils and DNSPs can work together to benefit their communities.

These workshops will build on the work in the conference and identify ways in which each stakeholder can support the work of the other. This work will aim to create longevity of these forums/exchanges and their importance within each organisation.

After the roundtable discussion, each table was asked to submit their top priority for further discussion via Slido. Below is a summary of both the top priorities of each DNSP areas and the themes that ran through the scenario discussions.

Throughout the conference and roundtable discussions it became clear that some DNSPs are further advanced in their level of collaboration with councils than others. For example, United Energy has had the advantage of attending a similar workshop last year where data collected through the workshop informed the development of an interactive constraints map tailored for the councils and distribution network areas.

The priorities determined on each table were heavily influenced by the make-up of that table. Council Planners may have differing views on priority areas for collaboration than those from the Sustainability department. The same can be said for representatives from DNSPs, where Network Planners and Community Engagement Officers may have differing views on areas for collaboration. The following summary of recommendations for each DNSP areas workshops are based on the outcomes of the workshops and the pre-meetings with the project steering group and DNSPs.

6.1 United Energy Network Area

Top Priorities for Workshop:

- Collaboration on Summer Savers for 17/18
- Clearer understanding of what information to share and when

Having the benefits of the United Energy constraints map and having been through a similar process before, the attendees from the United Energy network area were clear in their priorities. The top priority presented by the United Energy area was to collaborate on United Energy's Summer Savers Program. Also mentioned were the development of a how to guide for planning schemes on activity centres and a clearer understanding of what information to share and when. The conference attendees also agreed to overlay the constraints map with planning maps in preparation for the workshop. This would provide possibilities to determine future and emerging areas of constraint to focus on for

Figure 12: Roundtable Discussion: United Energy

collaboration of programs.

Possible Outcomes

- Co-branding of the Summer Savers Program.
- Collaboration on council sustainability programs.
- Aligning of planning processes.
- Innovative approach to an emerging or future area of constraint.
- How to guide for planning schemes on activity centres.

6.2 Jemena Network Area

Top Priorities for Workshop:

- Aligning planning processes and improving information sharing (what and when) between Jemena and Local Government.

The themes that presented themselves in the discussions in the Jemena network area where focused on what to share and when, and increasing transparency on planning processes. Jemena indicated that they would have a detailed constraints map developed by December 2016 which will be a benefit to the workshops. This would allow DNSP and council to identify areas where their drivers are aligned for an innovative response to an area of constraint. An opportunity such as the Broadmeadows example highlighted during Jemena's presentation would be the most obvious type of project for collaboration.

Figure 13: Roundtable discussion

Possible Outcomes:

- Process map of DNSP and Council interaction and information sharing.
- Collaboration on a program or trial in an area of constraint (such as Broadmeadows).

6.3 AusNet Services Network Area

Top Priorities for Workshop:

- Aligning and sharing intelligence of constraints, developments and programs between LG and DNSP. Develop relationships and engage in regular communication.
- Workshop explaining DNSPs networks, regulatory drivers, technical drivers and limitations for solar and battery.

It became apparent through the conference evaluation that a priority for the AusNet Services area is to improve information flow on planning processes, roles, drivers and responsibilities within each organisation.

AusNet Services have suggested they will have a constraint map ready for the workshop which should allow for discussions around opportunities for collaboration on specific programs or trials to ease constraints. However, any activity should have a heavy focus on aligning planning processes and improving communication.

Possible Outcomes

- Contact List of who to contact and when.
- Process map of DNSP and Council interaction.
- Collaboration on programs and trials to ease constraints.

6.4 CitiPower/Powercor Network Area

Top Priorities:

- Integrated strategic planning (learning from the metropolitan water / transport sectors).
- Having key contacts on both sides.

CitiPower/Powercor are the only DNSP not to indicate they would have a constraint map ready by early 2017 which may limit the possible outcomes of the workshop. It became clear through the conference evaluation that an approach that outlines the roles and expectations of each organisation and improving the timing of future communication is essential in ensuring that a relationship that allows for collaboration in integrated strategic energy planning.

Possible Outcomes:

- Process map of DNSP and council interaction
- Sharing of planning processes
- Contact List of who to call and when

7 Recommendations for Next Conference

The key recommendation for any future conference in the Future Energy Planning Series would be to **increase the conference length to 9am-3pm.** This would allow more time for Q and A and roundtable discussions and give participants an opportunity to have a lunch break before the activity. The following recommendations are a summary of the feedback received via Slido, the feedback survey and Ironbark's own conference evaluation:

Allow more time for roundtable discussion: There was a strong response that the time allowed for discussion felt rushed and cut off before some tables could complete their work. Providing only one scenario for each table would be highly recommended to ensure the timing was allocated efficiently. Allowing more time would also encourage greater thought into what the priorities are for subsequent workshops (i.e. a top 3 items instead of top 1).

Allow more time for panel Q&A: Many attendees felt the Q and A was far too short.

A longer lead in to the conference: The time from the project initiation meeting to the conference was 2 months. This timeline meant certain final steps received limited attention as the focus was on chasing up and finalising DNSPs presentations, table allocation and the preparation of scenarios for the roundtable discussions.

A more targeted audience: Although the audience was exceptional – with a clear membership of Local Government and DNSPs dominating the attendees, some responses from Slido, the feedback form and conversations on the day of the conference questioned the make-up of the attendees. The responses ranged from not enough planners and too many sustainability staff, not enough representatives from certain DNSPs (e.g. CitiPower/Powercor and Jemena) and questions as to why consultants attended a conference targeted toward DNSPs, Local Government and State Government.

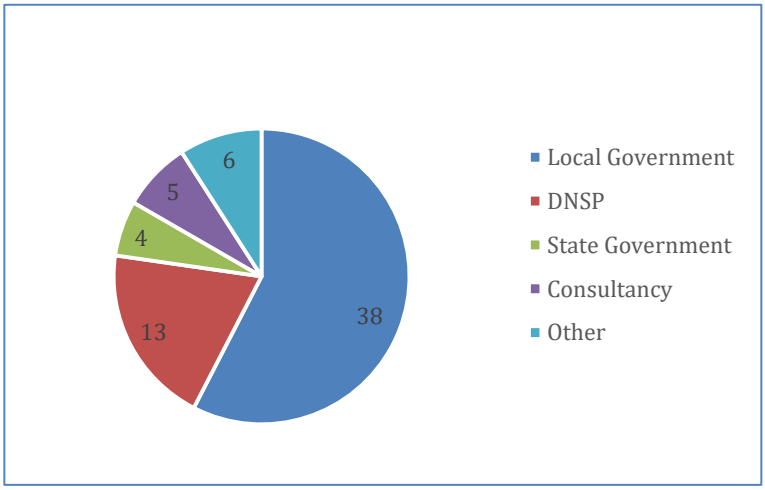


Figure 14: Number of Attendees by Profession

Be wary of gender balance: The presenters at the conference were predominately male. While we had limited influence over who presented from the DNSPs, it is worth considering the gender make-up of presenters. Noting that we ensured the only non-DNSP presenter was female as were 2 of the 3 table report backs after the workshops.

Increase Local Government role in the conference: Most of the presentations came from the perspective of the DNSPs. Having an increased input from councils, where they see opportunities for collaboration with DNSPs, would have given the conference a more balance viewpoint.

8 Next Steps

Following is a proposed timeline for the preparation of the workshops to be conducted in 2017 along with contact points between Ironbark Sustainability, NAGA and EAGA.

Table 7: Timeline Gannt Chart

Task	Who	25/10/2016	8/11/2016	8/12/2016	8/01/2017	8/02/2017	8/03/2017	8/04/2017	8/05/2017
Future Energy Planning Conference	C/RL/SM								
Conference Evaluation	C/RL/SM								
Set Workshop dates	C/RL/SM								
Develop stakeholder/invitation list x 4	C/RL/SM								
Venue selection x 4	C/RL/SM								
Event Admin (teleconference, registrations etc.)	RL/SM								
Constraint Map Development	C								
Workshop Development x 4	C/RL/SM								
Workshop Catering	C/RL/SM								
Prepare Workshop Materials	C								
Workshop Facilitation	C								
Workshop Evaluation and Report	C/RL/SM								

Table 8: Proposed Contact Points between Ironbark, NAGA and EAGA

Meeting	Timeframe
Next Steps Meeting (Workshop Design)	1/12/16
Workshop Trial Meeting	Late January
Pre-Workshop Meeting (Final Steps)	Late February/Early March

Appendix 1: Final Conference Agenda

Future Energy Planning Forum
Tuesday 25th Oct 2016 (9:00am-1:00pm)
Jemena Offices, Level 16, 516 Collins St, Melbourne, Vic 3000
AGENDA

Time	Presenter	Topics
9:00-9:30		**Arrival/Registration**
9:30-9.35	**Rob Law** (NAGA)	**Welcome** • Introduction and outline for forum • Overview of *Future Energy Planning* project
9:35-9:50	**Facilitators Paul Brown & Alexi Lynch** (Ironbark)	**What does energy have to do with planning?** • Energy markets and the future of energy • Opportunities/challenges for councils, networks and communities • Interaction between land use planning and electricity network planning
9:50-10.50	**United Energy Jemena Ausnet Services Citipower/Powercor**	**Perspectives from Victorian network planners (Panel Presentation):** Short presentations from each of the Victorian electricity networks to discuss the network planning process and opportunities for working with councils on new projects including: • United Energy: development of network constraints mapping • Ausnet Services: overview of Mooroolbark mini-grid • Jemena: demand management trials • Citipower/Powercor: residential storage projects Followed by Q and A
10.50 – 11:00	**BREAK**	**Tea and Coffee**
11:00-11:30	**Faye Adams (Manningham City Council)**	**Experiences from the Doncaster Hill precinct energy project:** • Drivers for the project • Benefits, challenges and opportunities for improving collaboration • Council planning process and how they worked with United Energy • How the networks information and process could work better for councils Followed by Q and A
11:30-12:10	**Facilitators**	**Roundtable Activity** At each of the tables workshop one of the energy planning scenarios provided Consider: • What demand management activities could be useful to address the constraint • What Council planning activities could assist in addressing the constraint • What information would be helpful • When is the appropriate time for the Organisations to talk/collaborate/refer

12:10 – 12:30	**Ironbark, NAGA/EAGA**	**Summary and next steps** • Report back from tables • Summary of outcomes and next steps • Closing comments
12:30-13:00	**BREAK**	**Light lunch and networking**

Appendix 2: Presentations

Please contact Rob Law at rob@mefl.com.au to request a copy of presentations.

Appendix 3 Q and A

How important is it for demand mgt. programs to involve engagement professionals?
Jemena's response was that it in their culture that all staff are expected to be able to engage with the community and stakeholders. All DNSPs replied that it is important and they all have positions of customer engagement

Did the customers notice the Mooroolbark min-grid system in the AusNet Services network area?
It is still early day in the trial so AusNet Services have not collected quantitative results on this question yet, but will be doing so via surveys. The solar PV has been installed to each participant, but the battery systems are only now being energised. Some customers have already expressed that they are more aware of their energy use and changing their usage patterns after the solar was installed.

How many sites like the Broadmeadows example are Jemena needing to address?
About 10 this year

Are the DNSPs sharing the learnings with other DNSPs around these sorts of programs?
All DNSPs meet on a regular basis and share information

What is the timeframe for the DNSPs to follow UE's lead in mapping the constraints at a detailed level?
Jemena and AusNet Services plan on releasing a constraint map like United Energy's in December 2016, CitiPower/Powercor on the other hand, plan on releasing a constraints map in late 2017.

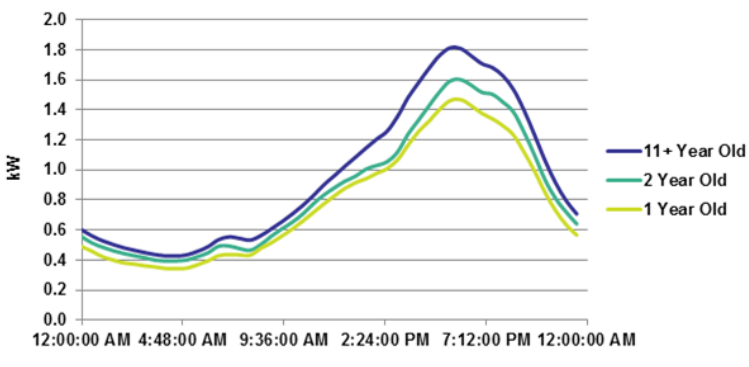
Is there a machine-readable data standard, such as XML schema, for network planning data which assists information sharing between DNSPs and stakeholders?

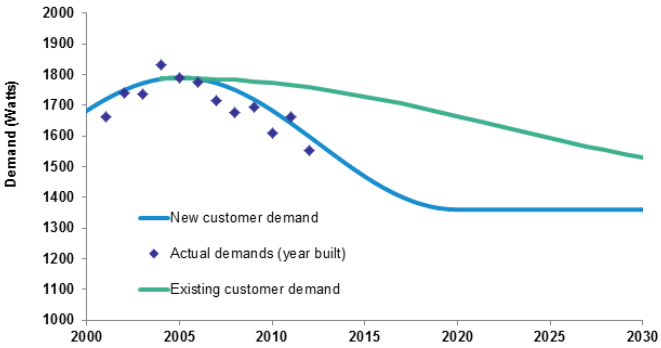
Tom Langstaff from AusNet Services was not similar with XML scheme, however AusNet Services are trying to improve how they convey network information. Information sharing is something AusNet would be interested in discussing during future workshops.

What will give DNSPs confidence that high energy efficiency standards for new development will translate into network benefits?

AusNet Services have a wealth of data on the impact of energy efficiency, using their interval meter data.

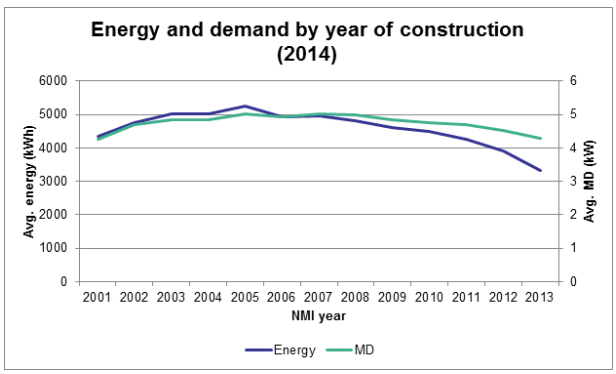
1. Firstly, demand profiles of houses of varying ages on a hot day. These are coincidental demand profiles (i.e. grouping all houses of a similar age), so diversity reduces the overall demand (that's why peak demand appears lower than a typical dwelling)

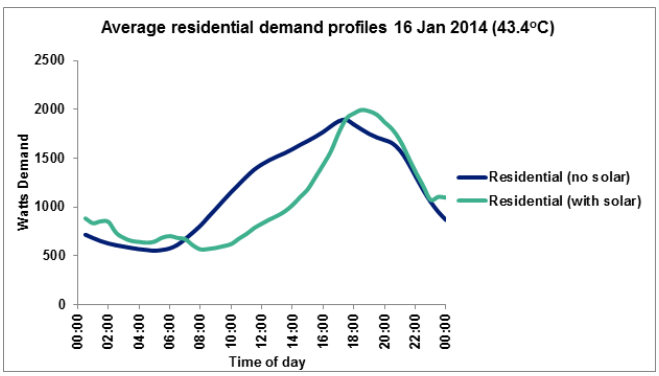




2. Next, we have the peak demands (again, all observed on the same day) of dwellings constructed in different years (the x-axis). The lines represent our forecasts – i.e. we expect new houses to get more and more efficient until about 2020 and we expect existing houses to catch up to new houses over time, as appliances get replaced and ultimately, the house gets completely renovated/rebuilt

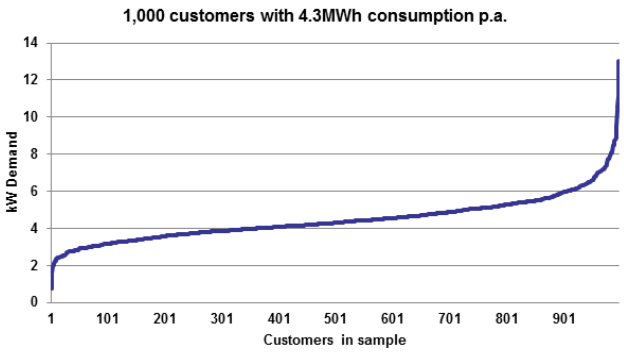
3. We can also see that energy efficiency has been increasing more rapidly than demand efficiency (i.e. energy efficiency at the time of peak demand). The below chart shows both energy and maximum demand in 2014 for houses built in a given year (the x-axis) and you can see that the energy consumption of houses built in recent years is far lower compared to their maximum demand. E.g. in 2014, a house built in 2013 used ~3,200kWh compared to the 5,000kWh which a house built in 2007 used (a 36% reduction). However, the difference in peak demand was about 4.2kW v. 5kW – a 16% reduction. The reasons for this are varied, but one of the issues is the tendency of people to set unrealistic target temperatures on their air conditioners. If it's 40 degrees outside and you set your 2.5kW air conditioner to 20 degrees, it can be as energy efficient as you want it to be, but it'll still be pumping out 2.5kW in a vain attempt to cool the air to 20 degC.





4. Whilst not specifically about energy efficiency, the difference that rooftop PV makes on energy and demand is shown in the below chart. This is the demand profiles (again, coincidental) of a group of solar customers and non-solar customers on a day during the heatwave. You can see the big impact that solar has on average demand, but there is no network benefit at the time of peak demand.

5. Finally, a word of caution on talking about the "average customer", particularly as demand becomes more relevant for tariffs. This is a distribution of 1,000 customers, all of whom have the same annual consumption (4.3MWh). It shows how the peak demand differs between those customers – the median is about 4.3kW, but at the extreme high end, there is a customer whose maximum demand is 13kW and at the other end, max demand is about 800 watts. Remember – over 12 months, these customers use the same energy.



I would be interested in hearing what role the DNSPs see themselves playing in advocacy and participating in discussion for energy market reform?

AusNet Services is an active participate in the Electricity Network Transformation Roadmap (ENTR). The ENTR is designed to map out the transition to the future of the grid. This work is being conducted between Energy Networks Australia, CSIRO and Australian DNSPs. This is a link to information on the roadmap. http://www.ena.asn.au/electricity-network-transformation-roadmap

Do batteries, in their current guise, reduce network investment despite peaks still existing?

The roll-out of batteries to date has not been significant. As CitiPower/Powercor undertake their annual spatial demand forecasts they will be incorporating the expected increase in batteries and reflecting these into their demand forecasts. So, to the extent residential batteries reduce peak demand (depending on how they are used in combination with rooftop solar PV), this will be included in each updated forecast and CitiPower/Powercors capital expenditure program will reflect these forecasts. Currently batteries have had no impact on reducing network investment.

Do CitiPower have any plans to operate a mini-grid in the Moreland area?

CitiPower/Powercor currently have no plans to operate a micro grid in Moreland. The reliability and security of supply to the City of Moreland area is already at a very high level.
For your information, we undertake peak demand forecasting annually, factoring in the anticipated reductions in demand growth from the impacts of solar PV installs and increasing energy efficient appliances. This results in our spatial peak demand growth forecasts being relatively flat or low growth, except for high urban growth areas, where new suburbs are being developed. In our networks, these urban growth corridors are in the outer western and northern suburbs, and in the area between Geelong and the surf coast.

Are there plans for Powercor to develop a customer portal, like Jemena's & PowerShop's, to access smart meter demand data?

Powercor have rolled out a smart customer portal where smart meter data is automatically uploaded and connected to the Victorian Government retail comparison website, giving customers a very easy way to make retail offer comparisons, refer to the myEnergy part of Powercor's website. https://customermeterdata.portal.powercor.com.au/customermeterdata/

Appendix 4 Round Table Discussions – Facilitator Notes

Hello Conference Table Facilitator,

Firstly, thank you for agreeing to facilitate the discussion on your table. The objective of the round table discussions is:

"To identify the priority discussion topics for the forthcoming workshops with Council and Distribution Businesses, that aim to enhance collaboration and planning for the future of the Energy System"

The round table discussions will involve three parts as outlined below:

- **PART 1 - Introductions to start the discussions (10 Minutes)**
- **PART 2 – Workshop a scenario (30 Minutes)**
- **PART 3 – Report back (20 Minutes)**

As facilitator your key role is to follow the agenda and keep everyone on topic. If participants are heading down "rabbit holes" not relevant to the discussion, feel free to say, "*great idea, let's Capture this, but we need to come back to our task because our time here is limited*".

If at any time you have questions about the Table Facilitator role, please talk to either Paul Brown or Alexi Lynch from Ironbark Sustainability.

Detailed Notes for Facilitators

PART 1 - Introductions to start the Discussions (10 Minutes)

A quick introduction from each participant, including:

1. Name
2. Organisation
3. Based on what you have heard today what most interests you in terms of opportunities for collaboration between councils and DNSPs?

Try to keep it to no more than 1 minute each – and let everyone know they have 1 minute and write down the participant's responses to question 3. (*Hint: You go first by giving your name and organization and what interests you. If you take 1 minute to do this then you've set the scene.*)

PART 2 – Workshop a Scenario (30 Minutes)

In this section each table will have been allocated **2 of the 4 scenarios** detailed below that they can workshop. Tables can workshop both of the scenarios they have been allocated or just one depending on how they are tracking for time. The scenarios are examples of where development is occurring in either a constrained area of the electricity distribution network or in a greenfields area (new area being developed).

Scenario 1 - Increasing Demand in Existing Constrained Area
Scenario 2 - Medium Rise In-fill Sustainable Precinct Development (constrained electricity area)
Scenario 3 - High Impact New Development (constrained electricity network area)
Scenario 4 - Greenfields Development Planned for Regional Centre

The scenarios are described in further detail below for your reference. Materials describing the scenario for participants will be provided on each table on the day.

The intention is to identify critical ideas and priorities for the upcoming workshops in the following tables below. You will find butchers paper on your table with two copies of these quadrants and headings already drawn up. Example responses have been provided in the quadrants below as a reference only.

Butchers Paper Layout

1. Information sharing and process improvement:
• Example Responses:
  • Sharing information on where the limitations are on a consistent/formal basis
  • Ongoing communication about development approvals being granted by Councils and upcoming development
  • Encouraging developers to talk to the networks about limitations on the grid
	2. Partnerships
	• Examples Reponses:
	  • Partnerships for delivering projects
	  • MOU for sharing information
	  • MOU for planning principals for a given area
	  •
	•

3. Policies and drivers	**4. Other**

• Examples Responses:
  • Potential for planning policies to require higher energy efficiency or renewable energy standards in development to reduce increase load on the network.
  • State and Federal Government Policy Settings
	• Examples Responses:
	  • Undertaking trials on Councils sites and sharing information with the community
	  •

We have provided some example solutions and follow up questions below to assist you with facilitating the tables.

Ideas to facilitate better collaboration and outcomes could include:

- Improving knowledge on energy technology trends
- Sharing information on where the limitations are on a consistent/formal basis
- Ongoing communication about development approvals being granted by Councils and upcoming development more generally
- Encouraging developers to talk to the DNSPs about limitations on the grid immediately OR facilitating a meeting with the DNSPs and the developer
- Collaboration on implementation of non-network solutions such as demand management in targeted areas
- Potential for planning policies to require higher energy efficiency or renewable energy standards in development to reduce increased load on the network.
- Collaborating on advocacy to improve legislation and policy to support more alignment between the planning processes
- Opportunities to partner on delivering renewable energy/storage solutions
- Implications of the State Government emissions reduction and renewable energy policies

Follow up questions could include:

1. Who needs to be involved from which relevant organisations?
2. What Council planning or network planning activities could assist in managing the impact of the development?
3. What information would be helpful to enable the approaches to be considered and facilitated?
4. What activities or other approaches could be useful to enable new energy technologies/solutions (demand management, more renewables, storage etc.)?
5. What are the priorities?

The Scenario's have been allocated as follows:

Scenarios	**Facilitator**
1: Increasing Demand in Existing Constrained Area **&** **2: Medium Rise In-fill Sustainable Precinct Development (in a constrained area)**	Gavind Ashely Gabrielle Breen Alexi Lynch Jacqueline Bridge James Tait

3: High Impact New Development (in a constrained area) **&** **4: Greenfields Development Planned for Regional Centre**	Rob Law David Meiklejohn Scott McKenry Tom Langstaff

PART 3 – Report Back on Priorities (20 Minutes)

Part 3.1 Top 5 Priorities
Each table is to spend 10 minutes agreeing what their top 3 priorities for further discussion at the workshops are and nominate the top 1 of these on Slido (web based audience interaction platform to be accessed via facilitators smart phone – see link below). Table facilitators can just number the priorities. To login into our event in Slido, use the event code below.

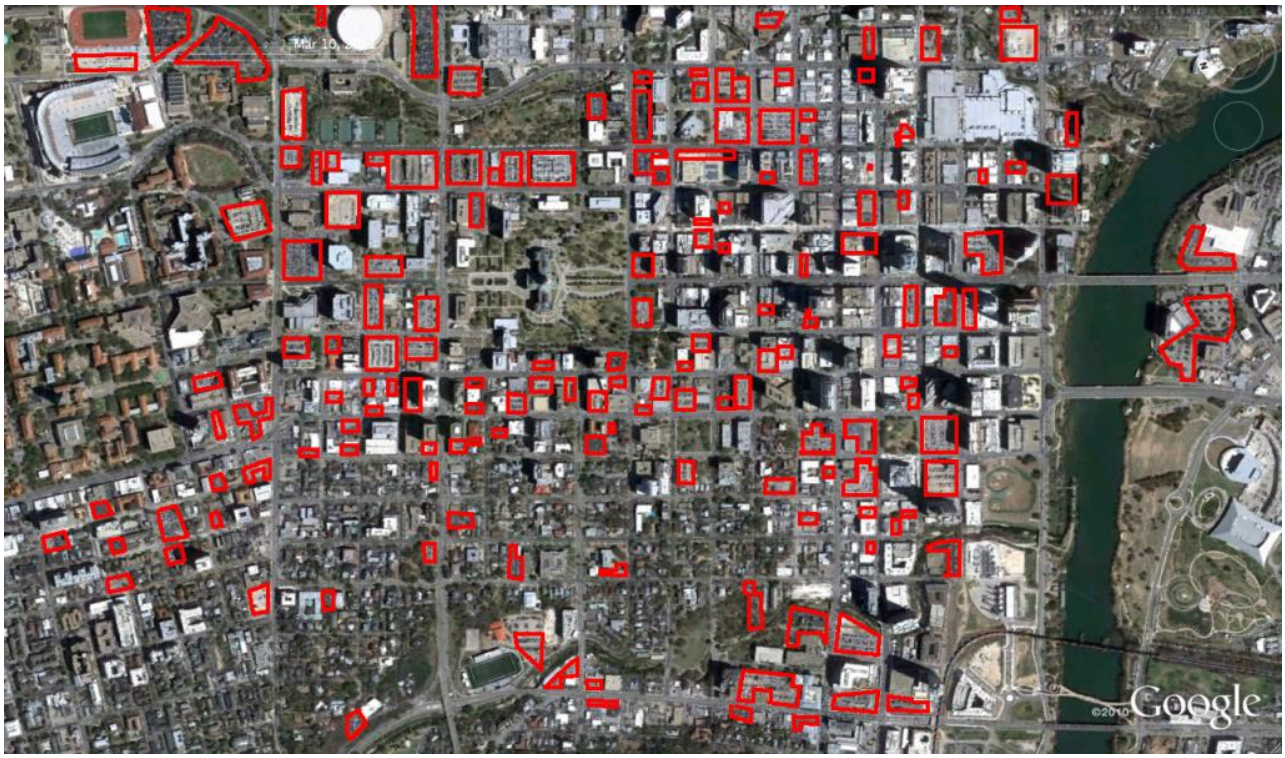
https://www.sli.do
Event Code: 8337

NB: Slido is just simply accessed via Google or safari, you do not need to download a separate app.

Part 3.2
Paul Brown to spen 10 minutes summarising what we get back via Slido and select 2 or 3 tables to run through more of their priorities and how they arrived at these.

Scenario 1 - Increasing Demand in Existing Constrained Area

An inner city suburb is experiencing significant infill development ranging from townhouses to medium rise apartments and commercial. Peak demand is growing and the electricity distribution network is constrained. There has also been a larger than average volume of planning permits for future development granted. The network is slowly becoming constrained and (unless there is an intervention) will at some point in the next 2 – 5 years require augmentation to meet peak demand.



Notes for facilitator:
The idea is to encourage discussion about the cumulative impact of development on the grid and how the organisations could better collaborate to anticipate and respond to emerging pressure on the grid.

Scenario 2 - Medium Rise In-fill Sustainable Precinct Development

An inner city suburb is experiencing significant infill development of medium rise apartments and the electricity distribution network is increasingly becoming constrained. A property developer is proposing to redevelop an old 9 hole golf course (approximately 40 Ha) into a new mini suburb in an established area. As well as housing, the suburb will gain a primary school, community centre, two parks and a commercial precinct. The developer is interested in creating an innovative, sustainable development with an emphasis on new energy solutions such energy storage and supporting infrastructure for electric vehicles.

Notes for facilitator:
The idea is to encourage discussion about how a precinct approach could be taken to the development. Potentially the introduction of a mini-grid where all the development within the precinct can work as an energy ecosystem (generation, storage, smart technologies) to minimize the impact of the new development on the grid. Alternatively, simply ensuring that the development is "future technology ready", i.e. putting in extra conduits, building design etc. to enable an easy retrofit of the area as new technology becomes more mature.

Scenario 3 - High Impact New Development

A proponent is proposing a new high-energy use industrial development in a constrained area of the electricity distribution network. The site will be manufacturing wind turbine blades and steal racking for utility scale solar PV plants. They turn up at Council for the first pre-application meeting to discuss the project. They have New Energy Jobs funding from Victorian Government grant funding for the project and have 18 months to be up and running and start creating those jobs!

Notes for facilitator:
The idea is to encourage discussion about how the organisation could better collaborate to facilitate the impacts of the development which will be under immense pressure to be processed quickly, as well as discussions around how new energy technologies such as renewable energy, energy efficiency and energy storage could assist.

Scenario 4 - Greenfields Development Planned for Regional Centre

A regional city council is planning a new growth area that is undertaking a scoping study to determine the planning principals for the area. The MSS in the Planning Scheme specifically refers to facilitating sustainable development within the municipality. The subject land has an area of 800 ha, and will accommodate approximately 30,000-40,000 new residents, include Mixed use development, and will have some dependence on a regional city. There is a potential for a new spur rail line to service the area.

Notes for facilitator:
The idea is to encourage discussion about innovative approaches to Greenfields development which could be taken when there is a clean slate. This could include requiring developers provide innovative energy solutions, providing areas where networks business could install energy storage technologies or simply ensuring that the development is "future technology ready" i.e. putting in extra conduits etc. to enable an easy retrofit of the area as new technology becomes more mature.

Appendix 5 Roundtable Notes

CitiPower/Powercor

Table 1

Attendees: CitiPower/Powercor, Swan Hill, Port Philip, ESC, MEFL, Melbourne, DELWP
Facilitator: *Gabrielle Breen (DELWP)*
Scenario: 2

Information Sharing and Process Improvements	Partnerships

• Data from DNSP to assist in planning for profile of demographics
• Collaborative scenario planning (developer/ DNSP/LG)
• better communication between all parties
• agreed/common outcomes for all parties involved
• trigger points in n/w augmentation process
• additional RE/storage/built environment.
• willing developers and DNSPs (e.g.: nightingale)
• better understanding of roles of different organisations and influences
• Process for LGs for early stage planning (early intervention may help manage resource planning)
• structure plans, LG/DNSP collaboration and planning
	• Most LGs have several developers that regularly develop in the LGA
	  ○ forums/scenarios/workshops
	• Entity acting on behalf of all parties?
	  ○ formal partnership at the outset
	  ○ equal share in investment/return
	• Appropriate contacts in DNSP, LG, SG
	• High level agreement (MOU)
	  ○ common outcomes for all parties
	• Role of intermediaries (NAGA/MEFL/ EAGA/YEF) to get the right people in the room

Policies and Drivers	**Other**
• Stricter regulations in planning scheme, • Process of developer applications to DNSPs (transparency), • For existing process inequitable, • DNSP price review	

Table 2

Attendees: CitiPower/Powercor, Ballarat, Bendigo, Geelong, Wyndham, Macedon Ranges, Brimbank, NAGA
Facilitator: David Meiklejohn (NAGA)
Scenario: 4
Priorities:

- Partnership model that allows for collaboration on integrated strategic energy planning (learning from transport planning and water industries).
- Having designated contract (communication protocols?) between DNSPs and Councils (let's talk about land use planning, battery & storage, demand side management strategies, precinct ecosystems)

Information Sharing and Process Improvements	Partnerships
• DNSP 4-5 years ago used to be	

administrative block to innovation/new initiatives ○ have improved over the last 3 years (needs more organisational culture change to value councils as valued stakeholders) • Having consistent contact people within DNSP ○ the right person for council to deal with would be helpful (currently very difficult to engage with PowerCor on various issues. • Bringing DNSPs (the same way we bring in VicRoads, Melbourne water etc.) at pre-planning stage would be very helpful (collaboration on forecasting demand) • Also need more DNSP representation at local consultations and forum to gauge their position/input. Build relationships! • Increase DNSPs strategic engagement with councils, rather than case-by-case or precinct-by-precinct etc.	
Policies and Drivers	**Other**

United Energy

Table 3

Attendees: United Energy, Stonnington, Whitehorse, Glen Eira, Manningham, Kingston, EAGA
Facilitator: Scott McKenry (EAGA)
Scenario: 1
Priorities:

- Collaboration on Summer Savers for 17/18.
- How to guide for planning schemes on activity centres

Information Sharing and Process Improvements	Partnerships
• Overlay of constraint map for march workshop (can do now) • Visibility on solar/residential for council lead programs • Regular meeting of customer groups of council and developer	• Manningham and Whitehorse summer savers for high density residential (dual branding)
Policies and Drivers	**Other**
• Influencing best practice ESD in the planning for Clayton one land developer • Advocating for strengthened VPP	

Table 4

Attendees: United Energy, Boroondara, Knox, Glen Eira, Monash, VPA, AER
Facilitator: Alexi Lynch (Ironbark)
Scenario: 1

Information Sharing and Process Improvements	Partnerships
• AER-DNSP info sharing/knowledge • Knowledge of increased volume planning applications. Better to get early • Multiple planning applications by stealth (as opposed to large ones) • Confidentiality (barriers) MOU? ○ partnerships • Seasonal info LGs have surrogate data (rates, mailing address v home address • Note Structure Plans challenging b/c 20-30yrs ahead • even councils struggle with this, just changing zone doesn't mean change • LG would (maybe) be relying more on DVPR • Early, early, early engagement	• UE not as proactive with councils re planning • Regular, formal engagement with LG on planning over next 2-5-10 years • We all have data, we need STRUCTURE. Perhaps quarterly discussions
Policies and Drivers	**Other**

• Alignment between AER-DNSP
• Look at LG policies around solar PV
  ○ voluntary programs
• mandatory PV in certain areas or more incentives
• VPA do request info on requirements
  ○ Note- networks can't own batteries????
	• Note: UE seeing decrease (like Aust wide) but peaks are higher/ more variable
	• FYI- a model that might work re on-going collaboration – SE / Melb Water and VPA etc. (speak to Paul Cassidy)

AusNet Table 5

Attendees: AusNet, Yarra Ranges, Manningham, Knox, DELWP, Melbourne University
Facilitator: Jacqueline Bridge (AusNet Services)
Scenario: 1
Priorities:

- Aligning and sharing intelligence (ie: constraints, developments, programs) between LG and DNSP.
- Develop relationships and engage in regular communication.
- Process and structure for collaboration.
- 1 page process map of DNSP and Council interaction

Information Sharing and Process Improvements	Partnerships
• DAPR limitations network needs longer term outlook • Council (no. of applications) DNSP (constraints in network) (define strengthen this relationship) • Owner/developer and council (precinct vision, pre-application meetings years ahead) • Owner/developer and DNSP (increase contact) • Define roles and establish relationships • Information exchange annually (LG-DNSP)	• Stat planning and ESD within LG • LG programs and DNSPs (MOUs for specific projects) • LG and Residents (small scale energy efficiency, renewables, sustainable homes) • DNSPs and alliances (eg:NAGA, EAGA, CASBE) to have quarterly meetings
Policies and Drivers	**Other**
• Develop ESD policy that can be applied consistently ○ smooth application process • Long term planning – zoning • Strategic planning aligned to state govt policy	• Load management through ESD (industrial, commercial, residential)

Table 6

Attendees: Ausnet, Bass Coast, Indigo, Yarra Ranges, Wodonga, Maroondah, Baw Baw, DELWP
Facilitator: Tom Langstaff (AusNet Services)
Scenario: 4

Information Sharing and Process Improvements	Partnerships
• Stakeholder engagement during structure planning/strategic development • Pre-amendment contact with key stakeholders • Need on-going engagement • Who is the right contact within the DNSP? • Planning approach has not changed over the time to address changes in how people	• Combined council and DNSP energy strategy • DNSP explain the network and its limitations - workshops

use energy • Regional council don't have the same pressure as city councils – customers may want different outcomes	
Policies and Drivers	**Other**

Jemena

Table 7

Attendees: Jemena, Moonee Valley, Moreland, Melbourne, Darebin, Hume, MEFL.
Facilitator: Gavin Ashley (MEFL)
Scenario: 1
Key Opportunities:

- Delivering sustainability to growth areas
- How can data be used better
- How can knowledge be shared better- through council programs eg: Darebin solar savers
- What are the design controls that could be used? What makes a good pilot?
- What should be implemented now through the planning scheme to better co-plan?
- What are the non-solar retrofit opportunities?
- Interface opportunities with substation integration with urban design
- Filling the gap between early consideration and a surprise approval – more collaboration
    - What would a cooperative approach with other land owners look like?
- How can we improve?

Information Sharing and Process Improvements	Partnerships
• Common data format • Sharing of processes • Framework of what to share and when • Strategic planning forecasting • Sharing of research	• Councils/service providers/ developers • Networking opportunities to produce efficiencies.
Policies and Drivers	**Other**
• Need for high level policy to encourage future energy planning • Meetings between councils strategic and energy providers to discuss relevant planning controls • Opportunity for referral of planning applications to energy providers (like for PTV)	• Constraints are tight road reserves for co-located substations • Passive design • Where is the nexus for program value to be monetised-network benefit? • Appliance control in new apartments will allow for reduced infrastructure – needs to sit with DNSPs • What would be the key questions for a collaboration?

Table 8

Attendees: Jemena, Hume, Banyule, Hobsons Bay, Brimbank, Moreland, Moonee Valley, NAGA
Facilitator: Rob Law (NAGA)
Scenario: 3

Information Sharing and Process Improvements	Partnerships

• -Contact List-who to call
• -changes, issues based
• Education and Capacity building for councils, what is council's role
• Clearer information on costs of new connections for council buildings (eg: from Hume). How do we know what we are signing? For businesses" the same tariff
• Timing is key
• Accurate estimates of peak demand, Networks err on side of caution but council/proponents pay much more
  ○ opportunity for adjusting down once have data, negotiable tariffs.
• Ask from networks, what's the criteria for them to be interested?
• Real life trials valuable for common learning
	• -How many departments/stakeholders need to be involved?
	• Water management a best practice model
	• Funding for innovation (eg: NEJF, demand Management)
	  ○ how does council get money to do projects?
	  ○ rate capping
	• Councils have good links to business/community, networks should utilise (eg: Jemena and Broadmeadows).
	• Ongoing information sharing sessions with network and council, help improve demand forecasting

Policies and Drivers	**Other**
• Identify areas where aligned drivers for an innovative solution • Network could incentivise developers to work with neighbours to reduce their costs. • Utilise EVAs for funding/ incentivise developers to look at local energy solutions • What offerings do networks have? Come along with bag of products to marry with opportunities • Ring fencing issues, what can/can't networks do? • No system to cater for energy across multiple sites eg: thresholds etc. • Opportunity for setting energy generation and/or energy efficiency targets at structure planning stage. Planners don't respond to precinct structure planning guidelines, no pressure to do that and networks aren't asking those questions	• Councils have own issues with connections and tariffs; opaque to councils

Mixed Table

Table 9

Attendees: Jemena, United Energy, Energy Locals, Greensync, YEF, Piechowski Energy, Hip v Hype, Seed Advisory
Facilitator: James Tait (Ironbark)
Scenario: 3
Note: This table had no Local Government representatives
Priorities:

- Harmonising/integrating LG and DNSP planning processes
  - size threshold (HV?)
  - timely trigger of process
- Information/awareness
  - consolidate/standardise information (make accessible)
  - Vic govt/ENA etc
  - highlights issues and opportunities
- Non-Network Solutions
- DNSP/Council/Customer/Tech Partnerships

Information Sharing and Process Improvements	**Partnerships**

• Link between council and DNSP
• LG planning Process
  ○ advising DNSP of application, timeframe
  ○ trigger of awareness, checklist for water, electricity
  ○ utilise network constraints maps
• DNSP connection application
  ○ potential for pre-connection dialogue
  ○ note: connection not standard across networks
• Proponent development
• Victorian government
	• Victorian Government
	  ○ funding to fast track
	• Non-network solution
	  ○ avoid the problem, time/ money required
	• Link to council/DNSP
	• Neighbouring customers
	  ○ develop precinct
	  ○ Council a key gateway

Policies and Drivers	**Other**

Positive:
• VRET-renewable energy target
• Local employment – new energy jobs fund
• Renewable and carbon policies
Negative:
• Connection process
  ○ who pays?
  ○ timing?
• Planning Process	