

# Tackling hidden energy vulnerability through housing, energy and health collaborations

**Nicola Willand**

RMIT University

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VCOSS Energy/Health Hardship Nexus Forum: A case for systematic change  
29 April 2024



# Key messages

- Energy vulnerability is hidden and discoverable in varied ways
- Linkages between organisations and sectors are critical in tackling hidden energy vulnerability
- Spectrum of collaborative models, but few with shared decision-making processes
- Spectrum of service delivery models – monitored referrals, handholding, prescription perceived as the most effective by participants
- Health practitioners and local councils could play an important role in tackling hidden energy vulnerability
- Capacity building at organisational and systemic level is needed to ensure, upscale and sustain actions
- Shared acknowledgement of need but difficult to engage Health policy makers
- Transitions are opportunities for change



**Tackling hidden energy vulnerability through housing, energy and health collaborations**

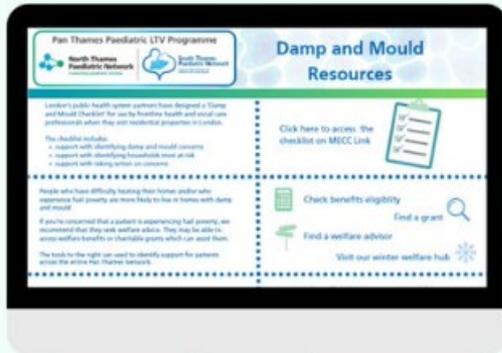
**Integrating energy efficiency & hardship improvements into the Care at Home system**



# UK - Energy assistance as health care

- Priority given to health outcomes and energy retrofits while energy reduction is an expressed secondary goal
- Strong focus on collaborations (local govt., health and other frontline staff; wide range of services)

## Damp and Mould Resources to support Health and Social Care Professionals



Source of image:  
[https://twitter.com/thames\\_south/status/1759575623301738879](https://twitter.com/thames_south/status/1759575623301738879)

Source: UK Health Security Agency (2012) 'Staying safe in cold weather. Easy Read booklet', accessed 20 April 2024.  
<https://www.gov.uk/government/publications/keep-warm-keep-well-leaflet-gives-advice-on-staying-healthy-in-cold-weather>

## How to keep your home warm



Heat the rooms you use most of the time. **18°C** is the coldest these rooms should be.



Stop cold air coming in your windows and around doors. It is cheap to put draught excluders around doors.



Keep bedroom windows closed at night.



Put insulation on water pipes to stop them freezing. Put insulation in your loft, too.



If you have mould or damp in your home, find out what is causing it. If you rent your home, tell your landlord.

# Addressing energy vulnerability

## Policy approaches

- **Financial interventions**, introduced to support payment of bills, and primarily focused on short term relief.
- **Energy efficiency programmes**, targeting improvements to the efficiency of building stock, or energy using appliances.
- **Information provision & raising awareness**, which improve understanding of consumer rights and information on market tariffs and energy saving measures
- **Additional consumer protection** for consumers using the retail markets.

(Csiba 2016, p. 125)

What

How?



# Tackling hidden energy vulnerability through housing, energy and health collaborations (2020-21)

Funded by the Lord Mayor's Charitable Foundation  
Supported by Housing Choices Australia and Homes Victoria



**Dr Nicola Willand**  
Prof Ralph Horne  
Dr Nooshin Torabi

*They said they can't afford their medication, like asthma medication, or they've neglected their health because they didn't want to have their electricity turned off. [...] Or that there could not have air conditioning because it would be too expensive, or that they have an old-fashioned heater because they can't afford a new one because of money issues. (Health\_14)*





Photo by [studioroman](#) from [Carva](#)

## **Aim:**

Inform capacity building strategies to mitigate energy vulnerability through integrated and collaborative service delivery and cross-sector policy development

# Hidden energy vulnerability is...

... the **propensity** of households to **experience harm** due to **energy poverty**,

- which may **not be easily detected** by **conventional indicators** of energy disadvantage, or
- which may be due to householders **not asking for energy assistance**

→ householders may be missing out on assistance

Photo by Bryan Schneider from Pexels

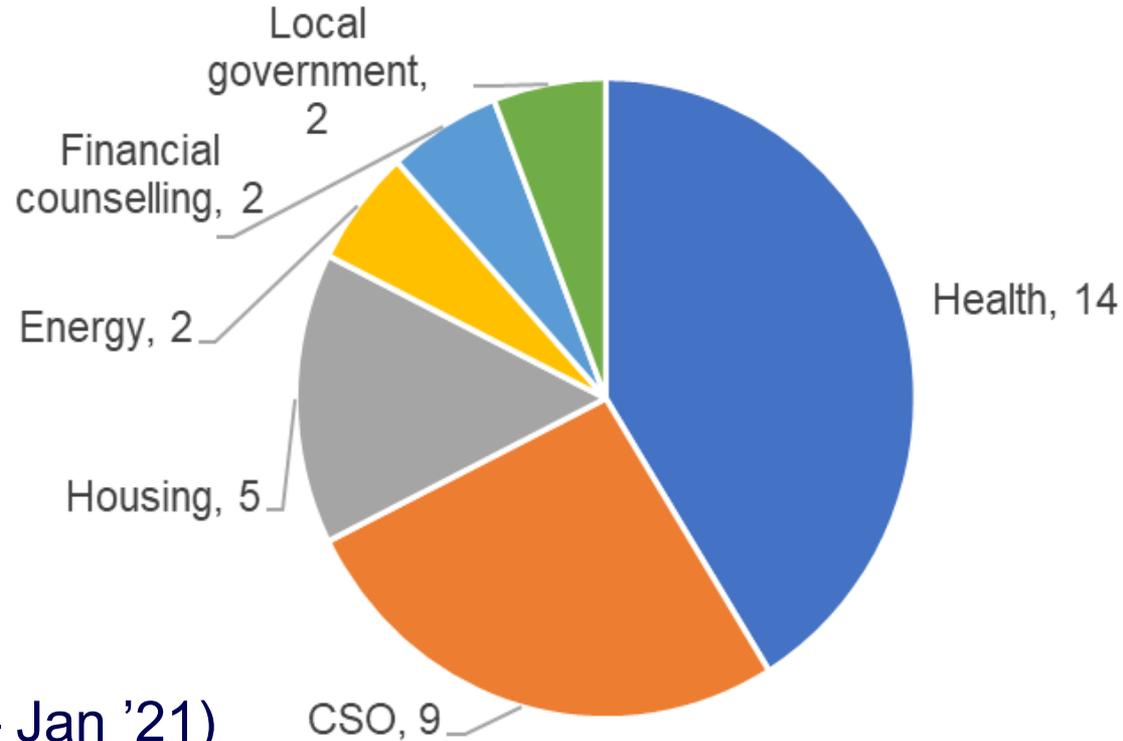


# Methods

## Interviews & focus groups

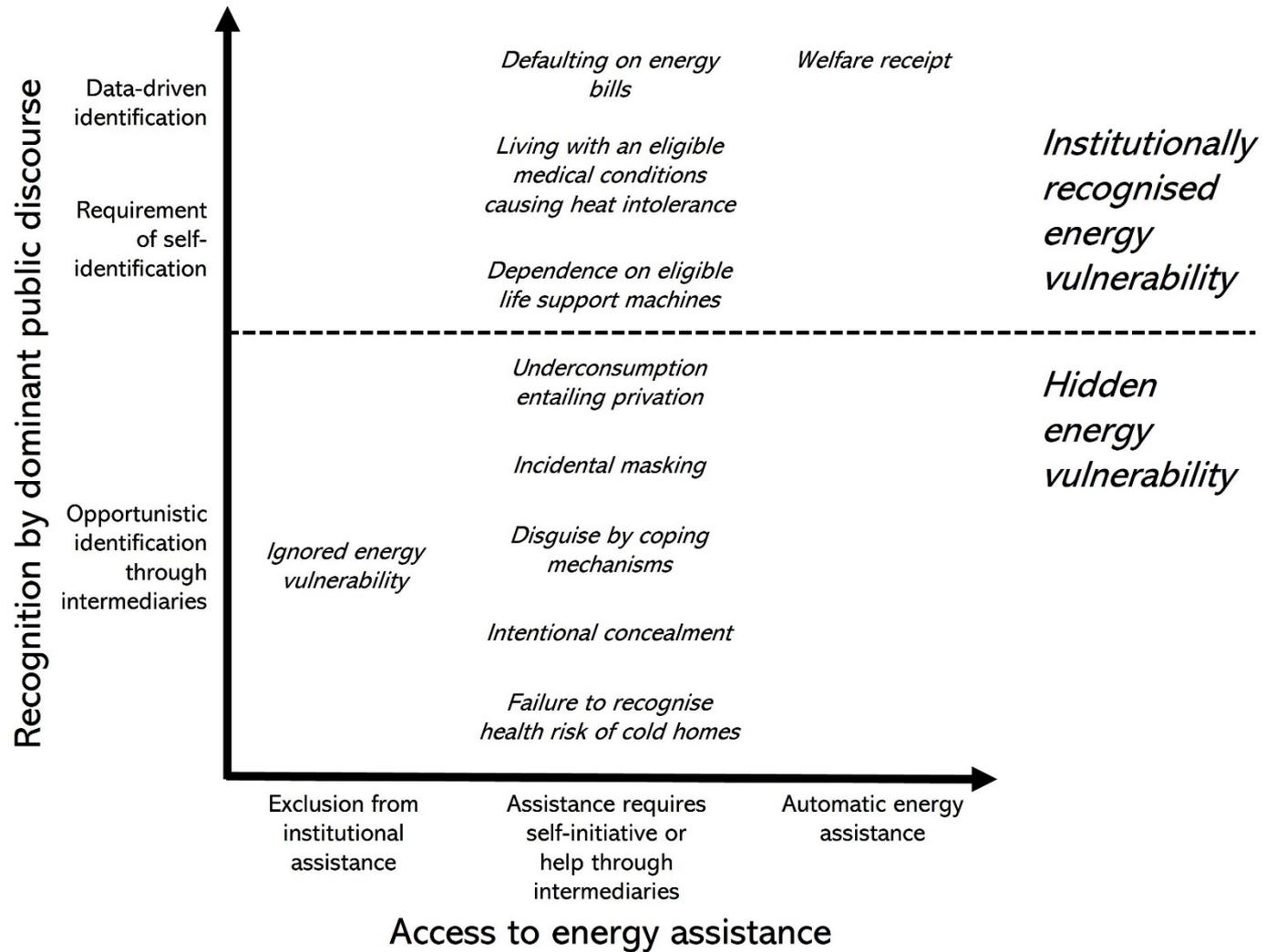
- key personnel in **housing, health, energy support and social service agencies** assisting households with energy support.

34 key personnel, (Oct '20 – Jan '21)



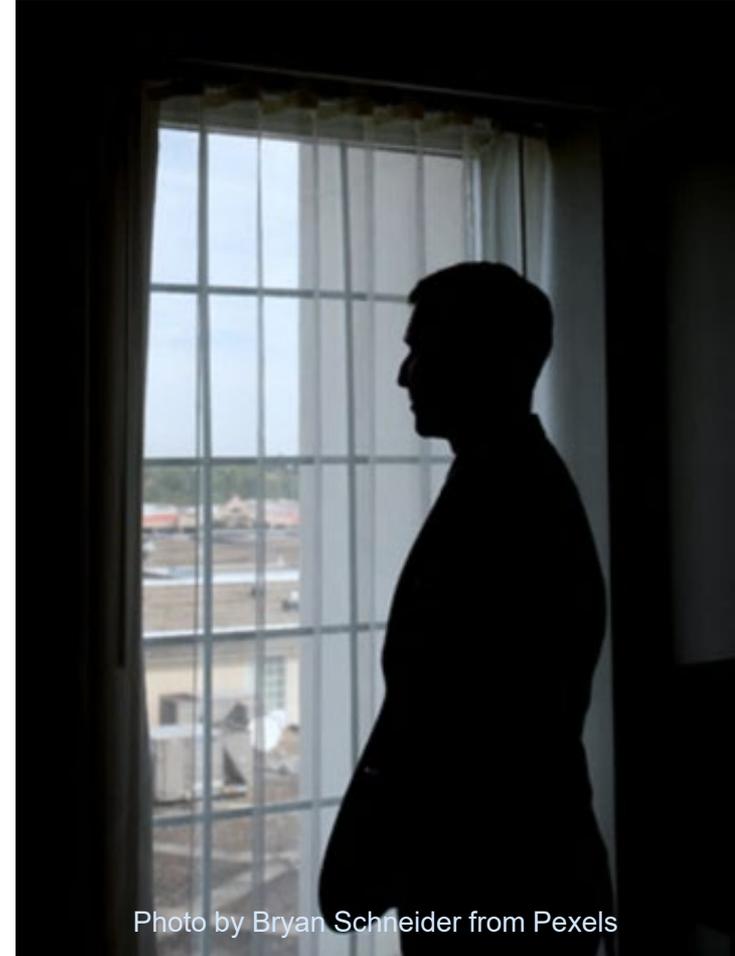
# Recognition shapes access to energy assistance

Source: Willand, N, Torabi, N & Horne, R 2023, 'Recognition justice in Australia: Hidden energy vulnerability through the experiences of intermediaries', *Energy Research & Social Science*, vol. 98, 103013.



# Methods of identifying hidden energy vulnerability

1. Conversations
2. Observations during home visits
3. Health assessment forms
4. Rent arrears
5. Indirect identification through other support services
6. Spatial techniques



# 1. Conversations

**Frontline staff** were listening carefully for indirect messages that might indicate financial problems:

- repeated questions about the costs of services
- refusal to engage in health support services, such as subsidised cleaning support
- requests for blankets
- welfare concession cards
- mention of CentrePay
- smoking and alcohol use

“ Really just from talking to them it would come up if they had disconnection notices, if they couldn't afford to pay their bills, if they have arrears. Or essentially things like you know, I don't turn my heating on because, you know I can't afford the bills, or I'm scared of the bills. Just from listening to what they've got to say. (FC\_2)

## 2. Observations during house inspections/ visits

**Housing staff** - Six-monthly rental inspections

**Health care assessment officers** - in-home assessment

**MCH nurses** – all homes of newborns visited at least once

- inadequate indoor temperatures
- lack of artificial lighting
- seemingly underserviced space conditioning appliances

“The heater is on, but the room is cold ... (LG\_2)

“The heat or lack of is something that's very obvious as soon as you walk through that front door, you know? [...] . We're not obliged to go looking from room to room. We do tend to go into the bathroom to see whether it's an appropriate sort of place to provide the personal care. But really we're not required to go from room to room to check out what's going on in each of the individual rooms. [...] we've been doing it for a long time. And **we do develop that sort of sixth sense** to sort of work out what's going on in the home just by being there. And just by observing as to what's going on, you know. (Health\_5)

# 3. Health assessment forms

## National Screening and Assessment Form - My Aged Care Living at Home Assessment (under 65)

- “Do you have adequate cooling and heating? Do you use it?”
- smoke detectors
- smoking and drinking
- medication use
- shower practices



“

*He said that he doesn't take a shower every day because he doesn't have hot water on the property. (Health\_8)*

“

*If they tell you, they're having six beers a day, that would be how much? \$20, \$30 a day, just for the alcohol. (Health)*

## 4. Rent arrears

Housing staff

- rent arrears among their tenants indicated possible difficulties in energy bill
- triggered contacting tenants and asking about their financial capabilities

“... you obviously make those calls and say, "Look, we've noticed it." And then, it comes out that, "I've got this bill, and I can't keep up. (Housing\_3)

## 5. Indirect identification through other support services

- request for reduced fee on the health care assessor's assessment form
- parent's request to have funds meant for children's activities to be re-allocated to paying energy bills.

“ [The parents] were turning up with large energy bills at the point of almost being disconnected and that they wanted to use their payment. So, they couldn't have the cash, but they could ask for their payment to be directed (CSO\_7)

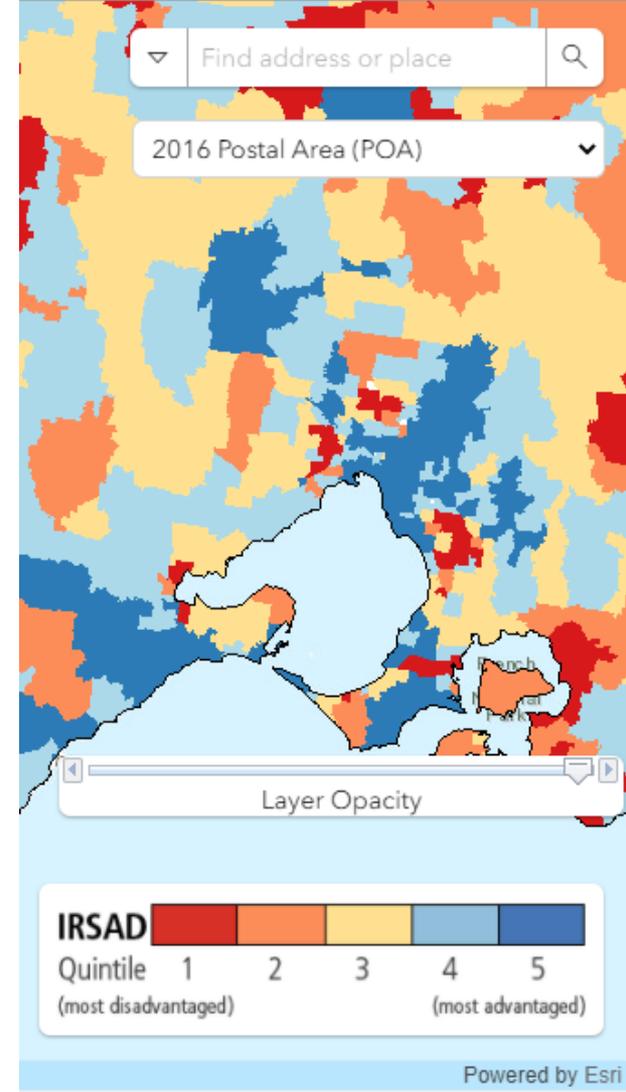
# 6. Spatial techniques

Identification of areas or population groups

- Mapping cumulative risk factors using Census data
- CSO internal: Family violence, welfare support and socio-economic statistics & energy-related complaints
- CSO – Energy: people forgoing heating, low-income high energy costs → mapping of cumulative prevalence
- Energy Info Hub: areas with high prevalence of markers of energy vulnerability → select prominent languages for translation

Map of SEIFA IRSAD index generated 2 April 2021

by <https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/2033.0.55.001~2016~Main%20Feature%20s~IRSAD%20Interactive%20Map~16>



# Models of inter-organisational relationships

Collaboration in social issues management = “temporary social arrangement in which two or more social actors work together toward a single common end requiring the transmutation of materials, ideas, and/or social relations to achieve that end” (Roberts & Bradley 1991, p. 212)

Roberts, NR & Bradley, RT 1991, 'Stakeholder collaboration and innovation: A study of public policy initiation at the state level', *The Journal of Applied Behavioural Science*, vol. 27, no. 2, pp. 209-227.

1. Consultations, co-operations and coalitions 🧑🏻‍⚕️
2. Elementary transactional relationships
3. Quasi-transactional relationships 🧑🏻‍⚕️
4. Collaborations 🧑🏻‍⚕️



# Consultations, co-operations and coalitions

**Consultations** = exchange of ideas led by one organisation, e.g.

- energy distributor's consumer advocacy group
- COVID-triggered community round table organised by the Victorian Essential Services Commission (ESC)

**Co-operations** = partnerships among organisations with aligned values in which there was mutual assistance but no intervention that may have directly benefited householders and mostly unilateral decision-making, e.g.

- energy audits by a CSO of community housing properties, funded by state government
- energy assistance training for social services frontline staff by one CSO

**Coalitions** = strategic alliance among organisations to reach a common goal quicker or easier



- One Million Homes alliance – CSOs, **Health**

**Conferences** - discover information, exchange ideas, network establish personal connections

**Research partnerships** - indirect, aspirational or desired future benefit - CSOs, **Health**



# Collaborations

Collaboration in health care settings = “professionals assuming complementary roles and cooperatively working together, **sharing responsibility for problem-solving and making decisions** to formulate and carry out plans for patient care. Collaboration [...] increases team members’ awareness of each other’s type of knowledge and skills, leading to continued improvement in decision making” (O’Daniel & Rosenstein 2008, p. 2-272)

O’Daniel, M & Rosenstein, AH 2008, 'Professional Communication and Team Collaboration', in H RG (ed.), *Patient Safety and Quality: An Evidence-Based Handbook for Nurses*, Agency for Healthcare Research and Quality (US), Rockville MD, pp. 2-271-272-584..



# Collaborations

## VicGov - Energy – CSO - Housing - Health: Solar PV panels installation in community housing with assistance from support workers

- solar energy company wanted to trial a new business model for solar PV
- CSO with interest in supporting renewable energy adoption
- housing organisation leased roof space for a nominal fee; provided a car space for batteries and inverters; organized community education events;
- health workers who supported householders in the process.
- funded by Victorian government
- all organisations involved from the start – timelines, communication methods
- feedback - solar energy company alerted housing team to unusually high levels of energy consumption
- handholding by support workers to achieve installation and connection to solar energy - translated information or put suspicious people's mind at rest, liaised among tenants, housing staff and energy retailers in the process of switching to solar energy
- evaluation: reduced bills (housing), anecdotal qualitative evidence

# Collaborations

## Energy – CSO - Health: community education webinars on heat waves and health

- CSO delivered community education webinars on heat waves and health
- resources were co-produced by the energy distributor.
- community health organisations helped in promoting the webinars and distributing hard copy and digital information.
- no direct referrals from the community health organisation to the CSO for individual advice because of privacy issues

# Models of service delivery

Energy assistance mostly by CSOs and financial counsellors

1. Engagement and outreach services
2. Signposting with self-referral
3. Facilitated referrals
4. Monitored referrals
5. Advocacy and brokerage
6. Collaborative handholding 
7. Co-location of services

Unilateral services 



# Handholding



= organisations guided householders carefully and slowly through energy assistance services

Solar PV installation in community housing

- collaboration among housing, support staff, CSOs, families
- education, explanation of technology and process, translation, access to phone, guiding conversations
- very effective but time consuming and costly process

“ One thing we found is one-on-one help for most of the clients is actually made 100% results. [...] We show the client what's happening on the iPad to them, and then we make a call from our office mobile. Because some of our clients may not even have their mobile phone, or they don't have any outgoing call credit on their mobile phone. So, we help them standing next to them, giving our phone to talk to their retailer, and **we put that sign saying “yes” answer.** [...] Support workers usually come and stay next to the client in support. Again, they don't have technical knowledge or technicalities of the systems. So, more often, what we request the support workers if the language barrier of our client is difficult, to talk to the energy retailers. (Housing\_5)

# Unilateral assistance cont.

## Certifications of energy concession requirements

GPs certified patients' need for medical energy concessions.

- knowledge from their patients who had learnt it from specialist support services
- started notifying other patients
- GPs skilled in working the system
  - adding of un-listed illnesses



## Letters of support

= instructions, prescriptions by GPs and OTs

- air conditioning
- additional electric sockets
- new stove



“  
*They just tell me whether it was successful. If not, I write a little bit more on how important it is that this patient is... can't cool down. So, he might end up in hospital or things like that. Like, I make it **a bit more of a traumatic in a second letter**, and usually after that it works. (Health\_14)*

## Energy distributor

- battery hire offer for life support customers during power outages

# Challenges... due to program design



## Planning shortcomings

- rushed design without householder participation
- oversight of people who do not self-identify
- ineffective single access service models

## Content issues

- lack of retrofit programs
- simplistic solar PV programs

## Insufficient and sporadic funding

- public disappointment
- hindered referrals and inter-organisational collaborations
- staff job precarity

## Limited evaluations of outcomes, lack of knowledge translation

# Challenges... in program delivery



## Time constraints

- contractual rules about duration of assistance
- delays in communication with retailers
- extra time needed for interpretation services

## Translation issues

- lack of translated material
- limited knowledge of energy among translators

## Difficulties with retailers

- variability in responses to advocacy efforts
- incompetent and insensitive call centre staff

**Limited evaluations of process, lack of knowledge translation**



# Challenges in program delivery

## Reluctance of householders to engage in services or accept assistance

- service wariness, feeling overwhelmed
- frugality, desire for independence, modesty
- freedom of choice
- mistrust in energy companies

## Dealing with complex needs

- need more time and resources, more appointments
- difficult to make appointments
- linking to support services

## Frustrations of energy counsellors

- feeling helpless when not being able to reach or assist people in need
- coming to terms with perceived inequities



# Challenges in collaborations

## Restrictions due to program design

- siloed approach in project design,
- restrictive funding agreements (tenders, time bound projects)
- competition among CSOs (few programs or businesses)

## Difficulty in identifying programs and partners

- no central site for information
- contact persons within organisations changed frequently
- geographical distance hindered collaboration
- variations in priority of organisations

# Keys to success... in interaction with householders



## Engaging householders

- appropriate timing (not dealing with other acute problems)
- showing empathy and not being judgmental
- tailoring message to individuals
- highlighting the links between energy services and **health**

## Delivery of assistance

- building of rapport with householders
- facilitated referrals, intensive individual guidance and handholding
- continuity of support though professional & personal support networks

## Communication

- simple messages
- skilled translation of technical knowledge into meaningful and individualised messages; culturally appropriate translation

# Keys to success... in collaborations



## Shared motivations

- general agenda or concrete objective of program/ project
- mutually beneficial, complementing strength and sharing burdens
- ability to tackle larger projects

## Selecting suitable partner organisations

- specific to funder or program
- CSO enjoyed trust in community, links to other support services
- local champions in community groups

## Maintaining relationships

- existing contacts, conferences, key people with power

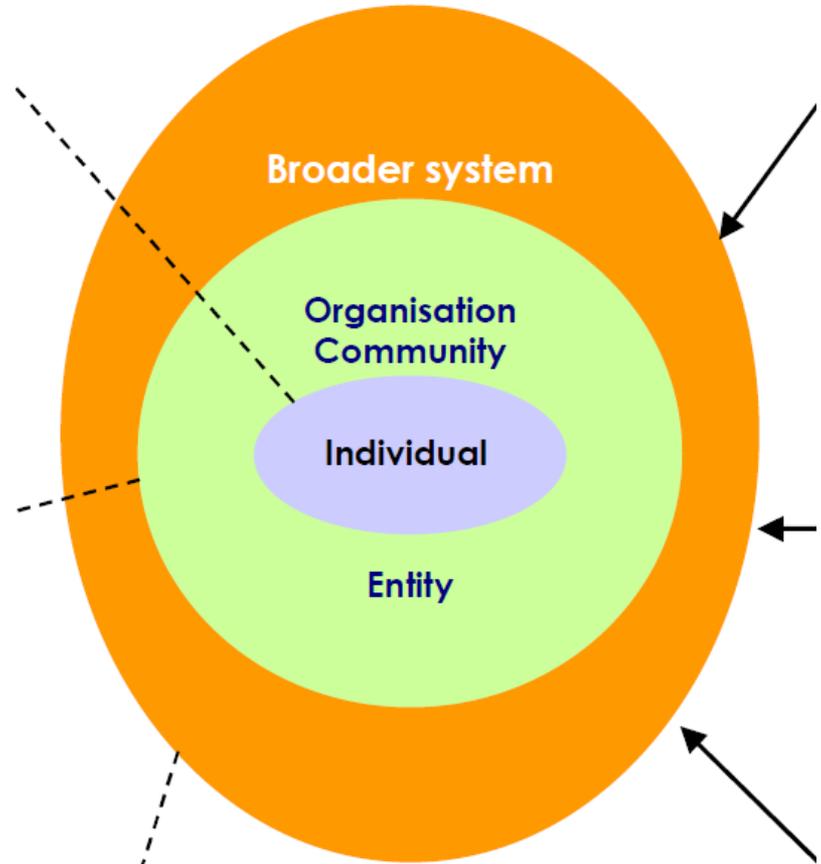
## Collaboration management

- clear communication and division of tasks,
- generous sharing of information

# Capacity building strategies

- Individual
- Community
- **Organisation**
- **System**

***Institution building***



Source of diagram: VicHealth n.d., *Capacity Building for whom, in what circumstances and how.*

# Individual capacity building

**Aim:** to improve the knowledge, skills, motivation and confidence of **intermediaries** who have regular contact with vulnerable householders and may facilitate their access to energy assistance services.

→ **Training** in energy literacy and in identification of energy vulnerability

- housing officers, community workers
- home care workers, NDIS staff, MCH nurses
- call centre staff
- interpreters

## **Content:**

- technical knowledge, reading of bills & communication skills
- understanding of social and structural conditions
- knowledge of varied assistance providers

## **Service delivery model:**

- signposting; bit of hands-on help

## **Tools:**

- Checklists

# Community capacity building

Community

**Aim:** to promote the capacity of communities to develop and deliver local initiatives to address hidden energy vulnerability

- development of local partnerships and establishment of referral and assistance mechanisms.
- 'opportunistic' approach to identifying householders

## Partnerships

- among health care organisations, social support services, housing organisations and CSOs who provide energy counselling

## Service delivery models:

- facilitated, warm or holistic referrals from health care providers, co-location or integration of energy counsellor into organisations
- Engagement and outreach, community champions, train the trainer, signposting through health support organisations

## Tools

- Central website for grant opportunities and assistance services
- Hard copy information, e.g. to complement assessment reports. Etc.

# Organisational capacity building, e.g. Local Council

**Aim:** to foster local leadership that allows diverse local entities and sectors to work towards the goal of eliminating energy vulnerability through shared responsibilities, complementary services and a continuous process of improvement.

## Local council can

→ **'data-driven identification'** of households - those who

- receive municipal rates concessions
- have a disability parking permit
- qualify for assistance with waste bins
- social housing waiting list

→ **'opportunistic' identification** of households

- **HACC and RAS teams and their MCH nurses.**
- **home care workers,** housing managers
- librarians etc.

# Organisational capacity building, e.g. Local Council

→ act as the **central point of referral**

- referral to local council energy advisor
- detailed and up to date knowledge and understanding of available programs, projects, support services

→ assist with the **implementation of energy assistance**

- free comprehensive energy assistance services
- assess needs
- organise audit
- facilitate energy assistance

→ Local council could offer practical help  
'Home Improvement Agency'

Organisation

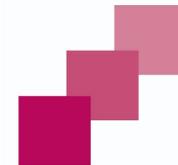
## East Suffolk Council



Local Authority Areas And  
Services  
Home Improvement Agency

Located in  
Melton, England

[View Listing](#)



**Home  
Improvement  
Agencies**

**Making Homes Warm, Safe & Secure**

# System capacity building

Broader  
system

**Aim:** to achieve a continuous progress towards eliminating energy vulnerability

- structural reforms
- through changes in policy, professional status of energy counselling, practices, funding and advocacy and involve all stakeholders

## Consider energy in all disciplines and decisions

- include access to essential energy services in Public Health and Wellbeing Plan
- better collaboration among state departments

## Cross-sectoral energy assistance service delivery model

- central helpline, independent advice, triage, referral to local energy counsellors
- training materials for frontline staff
- WhatsApp account



**Gambler's  
Help**  
1800 858 858

# System capacity building

Broader  
system

## Professionalising energy counselling

- formal qualification – technical and social skills
- assessing home energy consumption from a material, behavioural, economic and legal perspective,
- advising householders of avenues to decrease energy consumption, costs or emissions and helping implement these strategies



## Increased collaboration with energy retailers

- concession eligibility checks – always
- automated re-application of concessions for social housing tenants
- assistance for Life Support Concession
- ‘train the trainer’- community capacity building
- investigating energy issue rather than disconnecting
- change in bill design

# System capacity building

## New forms of assistance

- appliance manuals in different languages
- home care service providers to offer more energy-related services
- assistance for private renters and owner occupiers

## Suggestions for regulatory reforms

- minimum energy efficiency standards for private rentals
- better energy efficiency of social housing and giving tenants more security in their tenure
- enabling access to solar PV, batteries or insulation for tenants
- better welfare support for asylum seekers and refugees
- more accessible and holistic welfare system

## Advocacy for policy change

- changing political will – upscale retrofit programs
- **advocacy from health professionals** could be powerful

# Funding

## More funding for

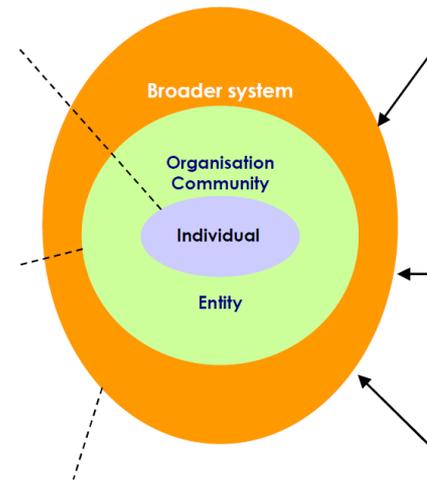
- retrofits
- interaction with householders
- capacity building

## Continuous funding needed

- continuity of assistance,
- job security of staff, knowledge and skill retention
- gradual strengthening of trust, inter-personal
- inter-organisational collaborations and awareness of services among householders

## Possible sources:

- net zero carbon emissions funds
- energy company obligations
- health budgets



7. The most benefit to society, and the individual will be achieved if ECO reaches low income households who have physical and/or mental health issues caused or exacerbated by living in a cold home. This approach relies on LAs having mechanisms in place to identify such households, for example GP or hospital referrals.

# Integrating energy efficiency & hardship improvements into the Care at Home system (2018)

Funded by RMIT University

Supported by the Australian Government Department of Environment and Energy, the South East Council Climate Change Alliance, Moira Health Alliance, Nexus Primary Care and Energy Consumers Australia.



**Dr Nicola Willand**

**Dr Debbi Long**

**Dr Dena Sharrock**

VICTORIAN ENERGY  
**COMPARE**



Victorian  
Residential  
Efficiency  
Scheme

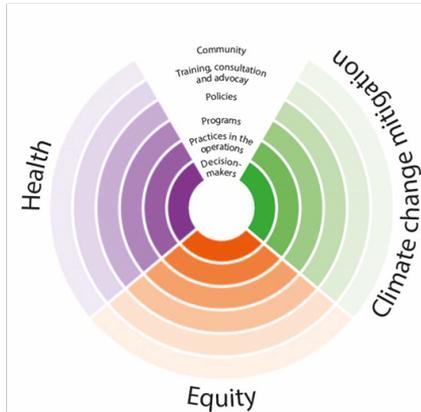
See if you're eligible  
for concessions



Victorian  
Energy  
Upgrades



# Method



- **Desktop review** to understand domains
- **Organisational ethnography** to identify current practices and needs of resources
- **Stakeholder interviews** to identify opportunities

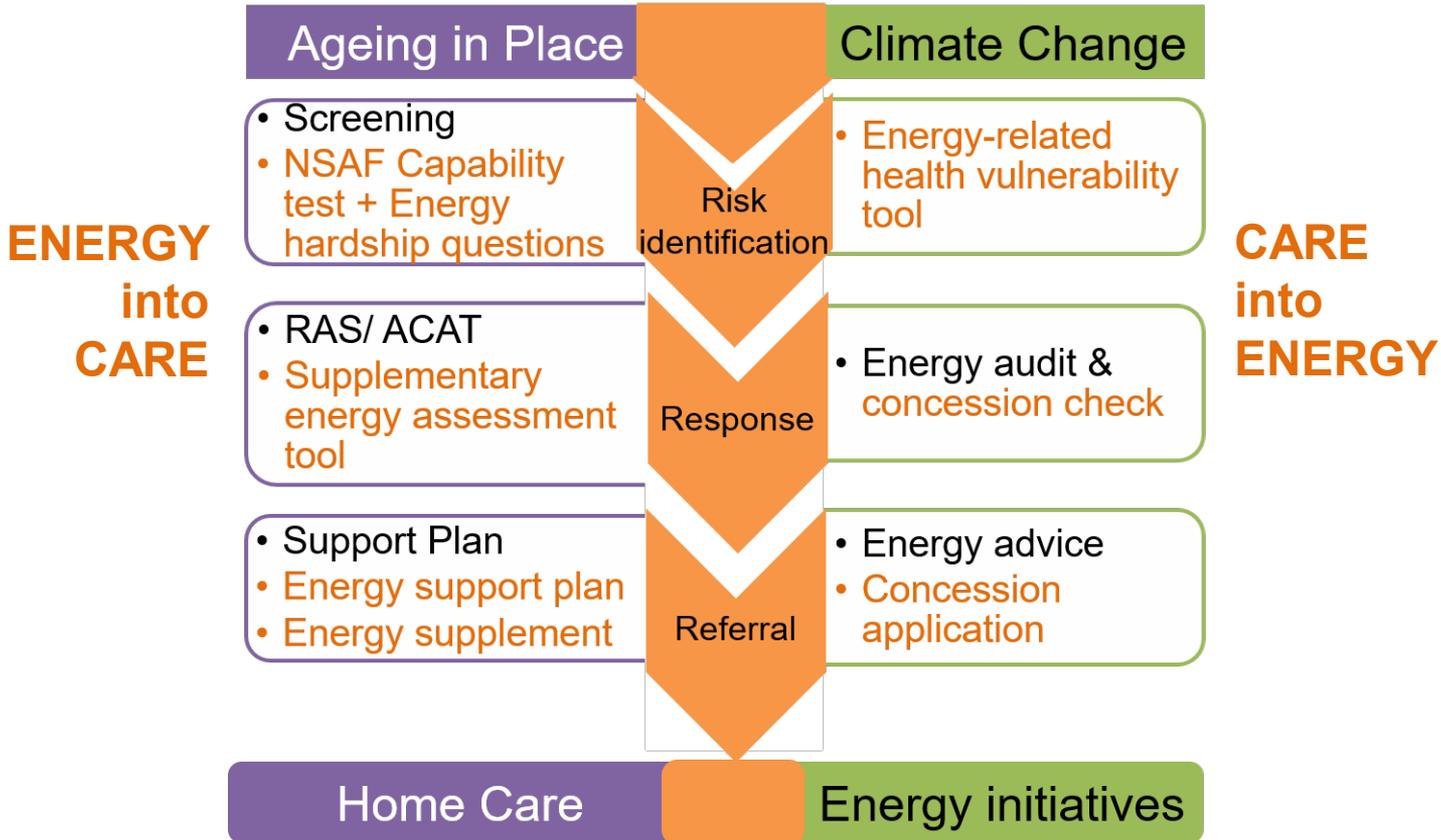


## The Model



# The Model

## Integrating ...





# Free resource



When Vic learnt about healthy, comfortable and energy efficient homes

Story by Nicola Willand & Lucie Middlemiss  
Illustrations by Suxuan Tian





Back home, Vic and Grandma make many improvements to their home based on what Vic has learnt.

The added **insulation** material between the timber studs in the walls and rafters in the ceiling reduces the heat flow through the building elements.

**Solar photovoltaic** cells work best when facing the sun and in an unshaded area of the roof.

A **reverse cycle air conditioner** is an energy efficient way of heating and cooling a home..

**Double-glazed windows** offer good insulation.

**Induction stoves** can boil water faster than other types of cooktops.

**Ceiling fans** often come in combination with LED lights.

**Flyscreens** can be easily removed for cleaning.

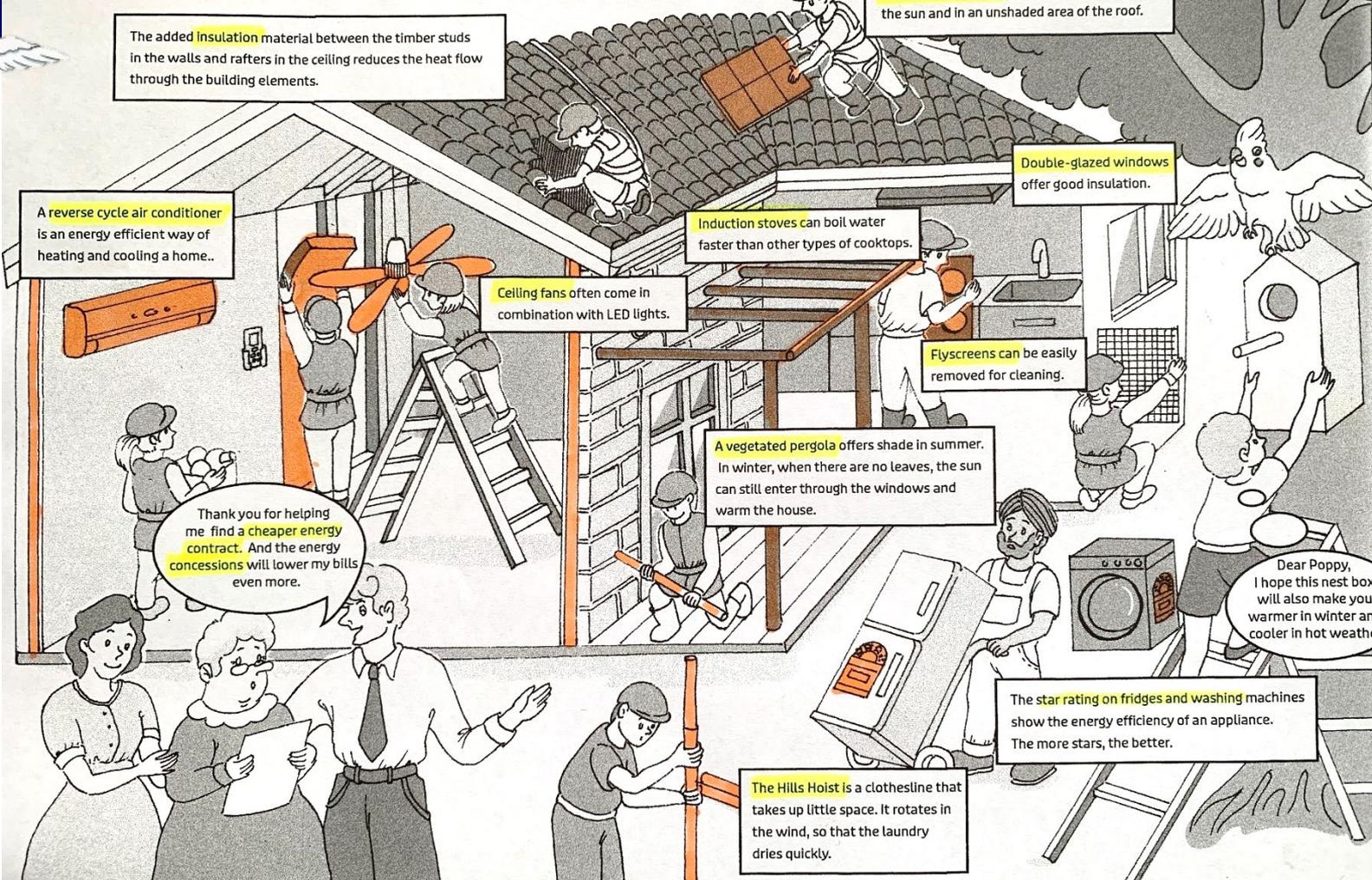
A **vegetated pergola** offers shade in summer. In winter, when there are no leaves, the sun can still enter through the windows and warm the house.

Thank you for helping me find a **cheaper energy contract**. And the energy concessions will lower my bills even more.

Dear Poppy, I hope this nest box will also make you warmer in winter and cooler in hot weather.

The **star rating** on fridges and washing machines show the energy efficiency of an appliance. The more stars, the better.

The **Hills Hoist** is a clothesline that takes up little space. It rotates in the wind, so that the laundry dries quickly.



Collaboration with  
University of Leeds.  
Funded by the British  
Academy.  
Supported by the  
European WELLBASED  
project.



UNIVERSITY OF LEEDS

**RMIT**  
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