

NATIONAL EFFICIENCY SCHEMES SUMMIT



UNSW ROUNDHOUSE, SYDNEY 23 MAY 2023

FINAL REPORT

PREPARED BY PATRICK CRITTENDEN
DIRECTOR, SUSTAINABLE BUSINESS GROUP

About the National Efficiency Schemes Summit

The first National Efficiency Schemes Summit was held in Sydney on 23 May 2023. The Summit was hosted by the Energy Efficiency Council (EEC) in partnership with the NSW and Victorian governments.

Over 180 policy makers, regulators, energy efficiency service providers, researchers and consumer representatives from across Australia attended the Summit.

The Summit was presented by the Energy Efficiency Council, with principle partners the Office of Energy and Climate Change, NSW, the Victorian Department of Energy, Environment and Climate Action, and platinum partner MAC Trade Services.

About the Summit proceedings

This document summarises the main themes and the diversity of views expressed at the event. It is intended to support ongoing efforts to leverage the collective experience of Scheme stakeholders to improve state-based efficiency schemes and to contribute to the significant transformation of Australia's energy system that is underway.

The Summit proceedings have been developed by Patrick Crittenden of the Sustainable Business Group.



Table of Contents

Executive summary	4
Introduction	5
1. What are energy efficiency schemes and what do they do well?	7
2. What is the current focus of existing efficiency schemes?	10
3. What is needed for efficiency schemes to work well?	12
3.1 Bring in new and innovative technologies	13
3.2 Bring in products with longer-term impacts	14
3.3 Ensure product quality	14
3.4 Measure, verify and build trust across the market	15
3.5 Adapt to emerging challenges	16
3.6 Leverage and support complementary policies	19
4. How can collaboration be fostered?	21
4.1 Key stakeholders	22
4.2 Ways to support collaboration	24

Executive summary

Energy efficiency schemes have a proven track record in Australia and around the world as a low cost mechanism that governments can use to accelerate the uptake of energy efficient appliances and equipment within households and businesses. Beyond reducing energy costs and greenhouse gas emissions, efficiency schemes have delivered a range of additional benefits – including improved comfort and health outcomes in households, stable jobs in the energy efficiency services industry and recycling of the appliances and equipment that are replaced.

For well over a decade, Australia's State and Territory-based efficiency schemes have proven to be successful and resilient by responding to changes in consumer preferences, government policy and energy markets. They have achieved this by revising their goals, extending their targets and regularly reviewing changes in the market for energy efficient equipment and services.

As efficiency schemes continue to adapt and improve, governments and stakeholders have recognised there is significant potential to better leverage the collective experience of those involved in the different schemes. By better utilising stakeholder perspectives and experience, efficiency schemes can continue to adapt to emerging challenges. These challenges include the need to:

- encourage electrification,
- contribute to load shifting as the grid decarbonises, and
- support vulnerable households as Australia's energy transition accelerates.

Consistent with this flexible and forward-looking approach, on 23 May 2023, 180 policy makers, regulators, energy efficiency service providers, researchers and consumer representatives from across Australia, came together to share perspectives on how Australia's efficiency schemes can further leverage efforts to help deliver the significant transformation in Australia's energy system that is underway.

This report captures the key insights from the Summit. It provides an overview of how efficiency schemes work, and the current focus of existing Australian schemes. It describes six key areas discussed throughout the summit that efficiency schemes need to consider to maximise their impact.

These are:

- new and innovative technologies;
- products with longer-term impacts;
- ensuring product quality;
- measurement, verification and trust building across the market;
- adapting to emerging challenges; and
- leveraging and supporting complementary policies.

Introduction

Energy efficiency schemes (referred to as 'efficiency schemes' or 'schemes' throughout this report) have a proven track record in Australia and around the world as a low cost mechanism that governments can use to accelerate the uptake of energy efficient appliances and equipment within households and businesses. As well as reducing energy costs and greenhouse gas emissions, efficiency schemes have delivered a range of additional benefits – including improved comfort and health outcomes in households, stable jobs in the energy efficiency services industry and recycling of the appliances and equipment that are replaced.

Australia's State and Territory-based efficiency schemes have proven to be successful and resilient for well over a decade by responding to changes in consumer preferences, government policy and energy markets. They have achieved this by revising their goals, extending their targets and regularly reviewing changes in the market for energy efficient equipment and services.

As efficiency schemes continue to adapt and improve, governments and scheme stakeholders have recognised there is significant potential to better leverage the collective experience of stakeholders across the different schemes. By better utilising stakeholder perspectives and experience, efficiency schemes can continue to adapt to emerging challenges.

Consistent with this flexible and forward-looking approach, on 23 May 2023, 180 policy makers, regulators, energy efficiency service providers, researchers and consumer representatives from across Australia, came together to share perspectives on how Schemes can further leverage their efforts to help deliver the significant transformation in Australia's energy system that is underway.

This report draws upon the insights from each of the sessions and categorises them according to the overarching questions explored throughout the Summit. These are:

1. What are energy efficiency schemes and what do they do well?
2. What is the current focus of existing efficiency schemes?
3. What do efficiency schemes need to do to work well?
4. What are the emerging challenges that efficiency schemes need to address?
5. How can scheme stakeholders collaborate better to further leverage their skills, knowledge and experience and to continuously improve schemes?

The Summit was structured around:

- updates from efficiency scheme administrators in Victoria, NSW, South Australia and the ACT
- a keynote presentation by Dr. Jan Rosenow which provided an international perspective on schemes
- three expert panel discussions
- three small group table discussions, each of which involved all Summit participants.

This report aims to capture the key insights from the Summit and share recommendations from scheme participants for the best ways to create regular and ongoing collaboration across stakeholders involved in schemes and related energy and climate programs. It is expected this will not only assist efficiency scheme administrators to improve their approach and impact, but will also encourage careful consideration of the way in which efficiency schemes interact with new policies and programs as they are developed by policy makers in all jurisdictions.

As many responses to the same questions were provided by different speakers in different sessions, this report does not reflect the chronological order of Summit proceedings.

The author would like to acknowledge the generous input from all speakers who contributed through their presentations and discussions on stage. All Summit participants made valuable contributions through their input to the small group table discussions. The paper was reviewed by the EEC as well as the NSW and Victorian Governments.

1. What are energy efficiency schemes and what do they do well?

The characteristics and features of energy efficiency schemes were presented by various speakers throughout the Summit. This section of the report captures those insights. It is intended to provide an introduction to Efficiency Schemes for stakeholders that are less familiar with how they work, what they do well and how they fit with other energy and climate-related policies and programs.

Key points in this section:

- Efficiency schemes are widely recognised as one of the cheapest and most effective approaches to deploy energy efficient equipment in households and business.
- They are currently in use in more than 50 countries around the world.
- Decisions on scheme design can significantly influence the delivery and impact of Schemes.
- To maintain their effectiveness, efficiency scheme reviews and adjustments are needed over time to address changes in consumer preferences, government priorities and the market penetration of energy efficient technologies.

For over 50 years, governments around the world have designed and implemented policies and programs to accelerate the uptake of energy efficiency in households and businesses. Today, efficiency schemes are considered one of the cheapest and most effective approaches to achieve this.¹ Their popularity is demonstrated by their use in more than 50 countries worldwide.

The aim of efficiency schemes varies from one scheme to another but typically includes reducing energy use, energy costs and/or greenhouse gas emissions.

There are currently four efficiency schemes in Australia:

- The Victorian Energy Upgrades program (VEU)
- The NSW Energy Savings Scheme (ESS)²
- The ACT Government's Energy Efficiency Improvement Scheme (EEIS)
- South Australia's Retailer Energy Productivity Scheme (REPS).

¹ In Australia we typically use the term "efficiency schemes" or "energy efficiency schemes" or refer directly to the name of a specific scheme. Schemes may also be referred to as 'white certificate' or 'Energy Efficiency Obligation' (EEO) schemes. Efficiency schemes are more broadly classified as 'market-based measures'. That is because governments define the outcomes for efficiency schemes (in the form of targets) but - relative to grants and other measures, provide relatively limited guidance on delivery pathways.

² The NSW Government also recently introduced a Peak Demand Reduction Scheme (PDRS) using a similar approach to the efficiency schemes.

Efficiency schemes in Australia share some design characteristics but are of two distinct types – *certificate-based schemes* in NSW and Victoria, and *retailer-led schemes* in South Australia and the ACT. Under the schemes:

- Governments develop legislation that imposes an obligation on energy retailers to reduce energy consumption and/or greenhouse gas emissions per customer, either through the purchase of certificates, or by commissioning direct customer interventions. The required savings are specified in advance as annual targets. Liable retailers are assigned an individual target based on their share of energy sales.
- A regulator is nominated to administer the scheme. This includes developing a set of eligible activities and assigning incentives or certificate amounts for each activity.
- To meet their obligations, energy retailers must purchase certificates that equal their targets each year (in certificate schemes) or demonstrate they have commissioned activities (in retailer-led schemes) sufficient to meet their target.
- Accredited providers carry out activities according to rules set under each scheme. In retailer-led schemes, retailers work with accredited providers to deliver activities to customers. Accredited providers may deliver energy efficiency upgrades themselves or work with equipment and service providers to deliver the upgrades.
- In certificate-based schemes, certificates are tradeable and therefore the price of certificates changes according to supply and demand in the market. In retailer-led schemes, the price of activities carried out under the scheme depends on contractual arrangements between accredited providers.

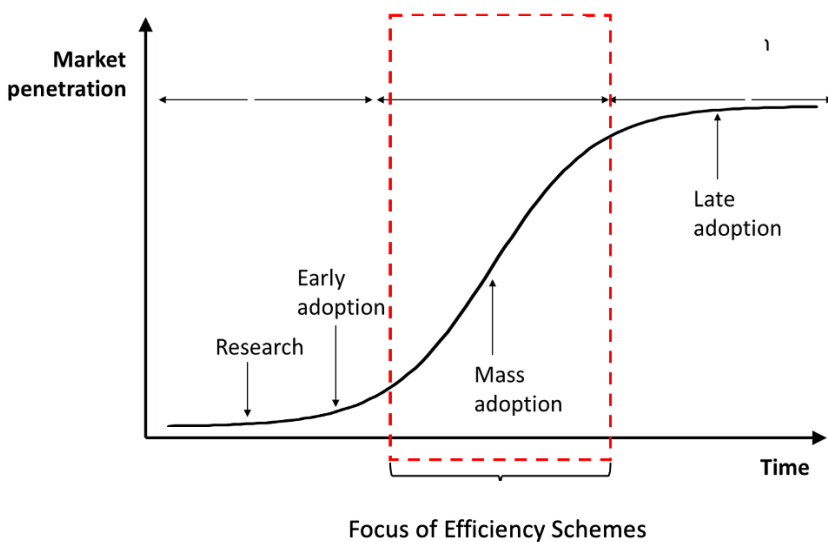
To date, efficiency schemes in Australia have delivered substantial and cost-effective outcomes.³ They have also demonstrated they can be adjusted, as they have been adapted periodically to improve scheme administration and delivery.

Some **advantages** of efficiency schemes include:

- long term targets, which provide continuity for stakeholders;
- funding through levies on electricity consumers to remove dependence on a government's annual budget cycle for allocation of funding;
- the market mechanism means they are typically very cost effective, as they encourage 'the market' to utilise lowest cost energy saving and emissions abatement activities. This has a direct relationship to the narrow targeting of technologies that typically occurs within schemes as they have been most successful encouraging the mass adoption of emerging technologies (Figure 1);
- delivery of a range of additional benefits, such as better health outcomes in homes and specified waste management requirements, which have led to increased recycling of equipment that has been replaced;
- private businesses being mobilised to deliver on the efficiency scheme outcomes. This has led to efficient delivery, business model innovation and the creation of jobs in the energy efficiency sector.

³ One example shared at the Summit was that NSW have achieved total savings over the life of their Energy Savings Scheme of 40,000 GWh. This is around 2/3rds of total annual NSW energy demand.

Fig 1: **Efficiency schemes are most effective at taking emerging energy efficient technologies and accelerating their adoption (adapted from Rosenow et al. 2017).**⁴



At the Summit, the advantage of efficiency schemes was summed up by Caroline Bennett (Green Energy & Carbon Management) in the following way:

"What we've done well is that we have saved energy, carbon and dollars for our consumers. We have rolled out low-cost simple upgrades well – the ones that could be rolled out en masse. And by doing that we've educated Australian consumers along the way."

⁴ Rosenow, J. and Bayer, E. 2017. Costs and benefits of Energy Efficiency Obligations: A review of European programmes. Energy Policy. <https://www.sciencedirect.com/science/article/abs/pii/S0301421517302379>

Some **challenges** to implementing effective efficiency schemes include:

- in certificate schemes, certificate prices rise and fall – which can provide uncertainty for market participants;
- if Governments make changes to the schemes at short notice, businesses can be left with a high level of inventory and cash flow challenges;
- the focus on low-cost energy savings and abatement can make it more difficult to deliver higher cost but longer-lived energy efficiency activities;
- once a few activities become established in an Efficiency Scheme they can crowd out other technologies – making it difficult for new technologies to come through.

In the first panel session, Henry Adams (Common Capital) described this final point:

"It is double-edged sword with established activities because as they drive costs down, they drive down the price of certificates, which can lead to a 'winner takes all scenario' where you have one or two activities that crowd out everything else. This means the next wave of technologies don't necessarily benefit from incentives that helped to get that first wave through."

The disadvantages of efficiency Schemes can be addressed by:

- modifying Scheme design based on evaluation and feedback; and
- working alongside relevant complementary measures.

Both approaches were explored throughout the workshop.

2. What is the current focus of existing efficiency schemes?

Key points in this section:

Australia has more than a decade of experience in the design and application of efficiency schemes in NSW, ACT, Victoria and South Australia.

Part of the schemes' success has been their ability to review, adapt and adjust to changes in government priorities and in the market.

Electrification, demand management and delivering energy upgrades to priority households are emerging as shared objectives across all Australian schemes. This demonstrates the potential for efficiency schemes to continue learning from one another and sharing work to address emerging challenges and opportunities.

The Summit was focused at an overarching strategic level, and less time was allocated to examining the detail of individual schemes. However to set the context, short presentations of each efficiency scheme were provided.

Andrew Rothberg⁵ explained that the **Victorian Energy Upgrades (VEU)** program has recently launched new electrification activities, including space heating and cooling, water heating and a Home Energy Rating Assessment (HERA). The Department of Energy, Environment and Climate Action undertook an Electrification Industry Engagement Pilot, and will commence a process for developing targets beyond 2025. The target-setting process will include consideration of ways to incentivise electrification and demand response as the grid decarbonises. Andrew explained that:

- being backed by legislation provides certainty;
- like other schemes, Victoria's has observed technologies targeted in waves, a function of being market based; and
- schemes can deliver market transformation.

Mark Pedler⁶ presented the outcomes following the first year of the **South Australian Residential Energy Productivity Scheme (REPS)**. Mark explained that the REPS was the third iteration of scheme architecture in South Australia, as the government responded to changes in the energy market. Unique to the South Australian scheme is an 'energy productivity' measure that takes into account the value of savings to the energy system overall. REPS also includes a quota to ensure a proportion of savings are achieved in vulnerable households.

Stephen Buckley⁷ described the achievements and recent updates to the **NSW Energy Savings Scheme (ESS)**. He provided historical context, explaining that the schemes approach began in 2003 with the Greenhouse Gas Abatement Program, which transitioned to the Energy Savings Scheme in 2009. In 2022 the NSW Government launched a separate scheme – the Peak Demand Reduction Scheme (PDRS). Stephen explained that recent developments in the ESS include the streamlining of rules through a collaboration process with policy experts, lawyers and coders. The team is also developing a range of digital tools to help consumers understand the financial incentives available to them in purchasing energy efficient equipment and appliances.

Mhairin Hilliker⁸ presented an update on the **ACT Government's Energy Efficiency Improvement Scheme (EEIS)**. Mhairin explained that the EEIS now has an energy savings metric, given that the ACT currently utilises 100 per cent renewable electricity. Further emission reductions are being achieved through gas to electric upgrades. In the ACT scheme, 40 per cent of activities must be achieved in priority households. Mhairin highlighted that the EEIS is shifting to deeper energy saving activities as it matures.

⁵ Principal Policy Officer, Energy Demand and Efficiency Policy, Victorian Department of Energy, Environment and Climate Action

⁶ Acting Director – Energy Policy and Projects, Government of South Australia

⁷ Senior Project Officer, Program and market development – Safeguard, Office of Energy and Climate Change, NSW Treasury

⁸ Assistant Director – Energy Policy, ACT Environment, Planning and Sustainable Development Directorate

3. What is needed for schemes work well?

Dr Jan Rosenow⁹ presented the Summit's keynote address. Drawing on his extensive experience evaluating the effectiveness of efficiency schemes in Europe and around the world, Jan shared lessons learned from five decades of energy efficiency schemes. One of the overarching messages from Jan was that:

It can appear to be a complicated mechanism, but there are simple choices that can be made around scheme design that lead to good outcomes. Poor and overcomplex design will likely lead to poor outcomes.

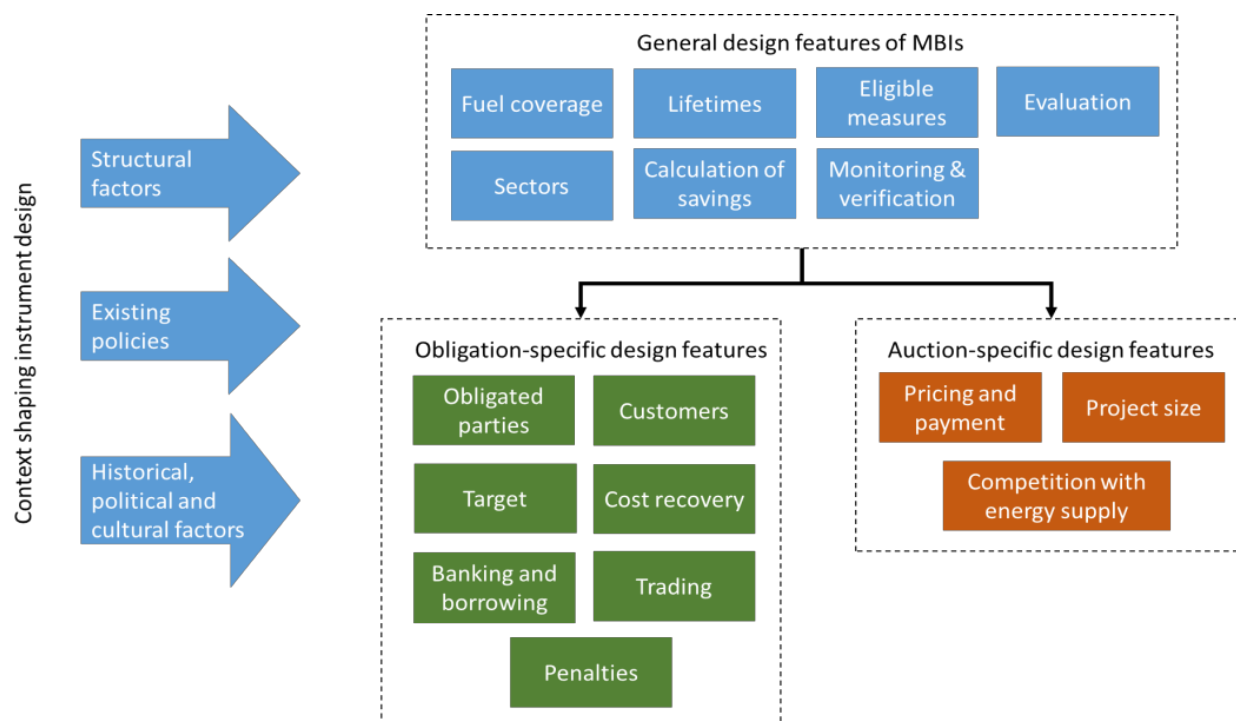
This message was reinforced from the start of Jan's presentation as he explained that for every scheme there are a range of design decisions impacting on effectiveness. These decisions are summarised in Jan's slide, which is shown in Figure 2.

Across the panel discussions and in the small group table discussions, several aspects of good scheme design were discussed. These include the need to:

1. Bring in new and innovative technologies
2. Bring in products with longer-term impacts
3. Ensure product quality
4. Measure, verify and build trust across the market
5. Adapt to emerging challenges
6. Leverage and support complementary policies

⁹ Principal and European Programme Director of the Regulatory Assistance Project, will provide a summary of experience with energy efficiency Schemes in other countries.

Figure 2: **Design choices for efficiency schemes that enable tailoring to specific policy and cultural contexts (Source: Jan Rosenow presentation)**



3.1 Bring in new and innovative technologies

Efficiency schemes have been shown to be effective at taking emerging technologies to scale in the market. However, bringing in new technologies requires policymakers to make targeted changes to scheme design, otherwise schemes risk continuing to preference technologies that are already established within them.

Introducing new technologies that haven't had significant market penetration also presents quality and supply chain risks.

Jan Rosenow provided several examples of how this is being addressed in other jurisdictions. For example, in the UK scheme, 10 per cent of all savings can be delivered as 'innovation measures'. This means a case can be made for technologies that are not currently on the 'eligible' list. This allows the technologies to be tested and, if they are shown to be successful, fully brought into the scheme. If they are unsuccessful, they have at least had the chance to be tested under the conditions of the scheme in a controlled and limited capacity. This approach is similar to 'sandboxing' in that it provides a space in which new technologies can be tested.

There was a high level of interest amongst scheme participants for the concept of 'sandboxing' and the use of quotas for innovative products. Jenniy Gregory (RACE for 2030) explained that:

"There's no mechanism in any of our efficiency schemes to trial new technologies or methodologies before they go out on a large scale. When Jan's slide came on I was excited, because I think we can avoid a lot of angst if we're able to have a sandbox mechanism to undertake trials at small scale."

3.2 Bring in products with longer-term impacts

Jan Rosenow explained that one of the important insights from international programs was to focus on longer-lived measures, like insulation, that can last 20, 30 or even 40 years.

As Douglas McCloskey from the Public Interest Advocacy Centre (PIAC) explained in one of the panel discussions:

"You want to have a deeper and longer running impact with these efficiency schemes. We should be ensuring that we capture the longer-term benefits of things that may be difficult to justify in the short term since they will have a deeper impact."

Jan explained there were several ways efficiency schemes could address this, for example, using lifetime settings as a metric, and by providing an uplift in the form of additional credits for longer-lived measures. These types of initiatives are being implemented in many schemes worldwide.

3.3 Ensure product quality

The importance of product quality was a consistent theme throughout the Summit.

While there was some discussion about the 'trade-off' between quality and achieving widespread adoption of new technologies, the common message in discussions was that product quality should not be compromised because it can have widespread and enduring impacts.

From one of the table group discussions the situation was presented as follows:

"The standard of appliances is really important to make sure end users are confident that – if they go through with an upgrade – they know they're going to be using a quality product, and what they have been promised is what they are going to experience."

Merrily Hunter (MAC trade services) described what can happen if product quality and/or installation is poor:

"It's important that we build the confidence of trades in the products they are installing. It's one thing to put in subsidies and say you can go and get a free heat pump. But if that heat pump fails within the first two years, then it's a big problem."

You are undermining the confidence in the technology to the plumbers, you are undermining confidence in the schemes, and you're also taking work away from other trade-based industries and good quality products where the hard yards have been done to build products that are fit for purpose."

The risks associated with "getting it wrong" were highlighted by Douglas McCloskey (PIAC):

"We should take quality as a given – in the same way we take safety as a given. That is because quality is fundamental to bring the industry along, as well as to maintain that social licence with people understanding and seeing the benefit. While people may not see the benefit on the bill – even over time – they will certainly see something that doesn't work."

As discussed in the complementary measures section below, initiatives such as the Greenhouse and Energy Minimum Standards (GEMS) Act can play a central role when relevant technologies are included in the register.

3.4 Measure, verify and build trust across the market

In his keynote presentation, Jan Rosenow highlighted that:

"Program evaluation is important because actually knowing what the programs achieve in real life can provide feedback to make them better, and continuous improvement is so important. So, you have to pay for proper evaluations – but there is a question mark about how much you need to spend."

Jan explained that the amount spent on evaluation by different efficiency schemes varied widely. In some schemes no evaluation takes place at all, and it is assumed the scheme delivers outcomes based on deemed savings only. In contrast, programs in the United States typically allocate around 5 per cent of program expenditure to evaluation. As a result, an extensive evaluation industry has grown to service US schemes. Jan suggested the 'middle ground' is probably most appropriate, with evaluation focussing on more capital-intensive activities such as heat pumps and insulation.

Evaluation has been an important consideration for Australian schemes. As highlighted by Phoebe Colman, (NSW Office of Energy and Climate Change):

"The government schemes take public money and efficiency, so it means we have to make sure we are doing as much as possible to ensure savings are genuine and accurate."

The importance of evaluation was also highlighted alongside product quality and the need to build trust and confidence for all market participants. This was expressed by a representative from one of the table groups in the following way:

"The reputation of the program itself is really important to drive engagement across a number of levels. Obviously at the consumer level, but also for service providers and program manufacturers. I think it's important to let everyone know that efficiency schemes are not only there for the long run, but are there to support quality outcomes across the board."

Other reasons why trust is important include:

- consumers can be wary of products offered as 'low cost' or 'free' – highlighting the importance of independent and trusted advice to address their concerns;
- trades such as plumbers may have had negative experiences with products such as heat pumps in the past, and need to be convinced there are now new products in the market that can work;
- energy efficiency service providers can lose confidence in the schemes themselves if changes are made without consultation, or are introduced with limited advance notice.

3.5 Adapt to emerging challenges

In each of the Forum sessions, including the table group discussions, there was a focus on efficiency scheme goals and how they could adapt to current and future challenges. This was expressed by Jenniy Gregory of the RACE for 2030 in the following way:

"I think we're in a transition period and the lower hanging fruit is gone. I think it's hard now because we are looking to decarbonise globally and in Australia. We've got all the targets. We need to make it. I think, for me, schemes need to step up and deliver more."

Douglas McCloskey from PIAC highlighted the important role of schemes by saying:

"Schemes were built around specifically targeting carbon emissions or energy. And I think what we want is a re-evaluation of their purpose ... to step back and look at the greater context of the energy transition that we're in, and the fundamental role these schemes can play."

The two significant changes needing a more strategic focus from the Schemes were:

- Transformation to a net zero emissions energy system
- Equity and access for all consumers

The transformation to a net zero emissions energy system

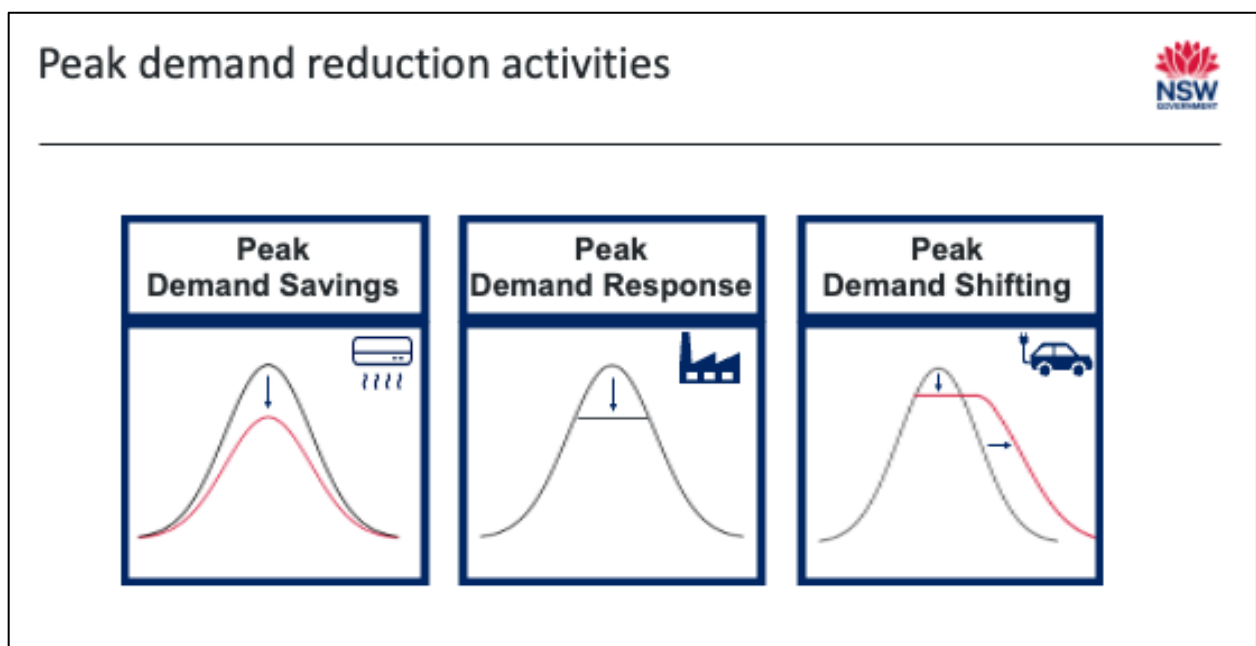
Jan Rosenow set the scene by highlighting that major changes in the energy system, particularly decarbonisation, require prioritising fuel switching (from fossil fuels to electricity) and valuing the timing and geographic location of energy savings.

The first aspect of this is **electrification**. This was widely discussed and Summit participants agreed it is an essential component to ensuring schemes are consistent with achieving net zero emissions. Jan explained the EU is currently considering a proposal to ensure efficiency schemes are unable to provide any subsidies or support for gas appliances and equipment. The question for Australian schemes is the extent to which they support electrification, and how this can be enhanced.

The second aspect is the **time dimension of energy** given the high penetration of solar energy into the Australian grid in the middle of the day. This means savings made at peak times have more value to the energy system overall than those made when renewable energy is plentiful.

Phoebe Colman from NSW OECC presented one solution the NSW Government is developing: the Peak Demand Reduction Scheme (PDRS). The PDRS is specifically designed to incentivise activities that reduce electricity consumption between 2.30pm and 8.30pm between November and March (Figure 3).

Figure 3: **The PDRS uses similar architecture to the Efficiency Schemes to explicitly focus on peak demand reduction activities.**



One of the considerations each Scheme needs to take is whether peak demand should be addressed by modifying the design of an existing scheme, or by developing

separate schemes that utilise similar approaches, or to rely on complementary measures.

The third aspect is the **location** of savings. As Jan Rosenow explained:

"At the moment, many efficiency schemes just count savings at the national or regional level, but don't differentiate whether the savings occurred in an area that is heavily congested where the savings would be more valuable, versus an area where there isn't a problem in the grid at all."

There has been limited consideration of the location of savings in Australian efficiency schemes. However, one of the table groups explained as they reported back on their discussion that there are significant benefits that could be obtained by supporting energy users located at the end of transmission lines, given the significant additional costs of providing these consumers with access to the electricity grid.

Supporting vulnerable consumers and people in rental accommodation

Throughout the Summit there was a strong focus on the challenges faced by certain consumer groups – particularly vulnerable households and renters. These groups face unique challenges in accessing the benefits provided by the efficiency schemes, and with the acceleration towards net zero there is the potential they will incur even greater impacts over time.

The use of quotas to focus on vulnerable households was welcomed. It was also highlighted that take-up is likely to be impacted by any upfront costs – given that even a relatively small investment may be out of reach of many. This was described by Luke Kronenberg of Green Energy Trading:

"I would like to see a combination of more targeted incentives including those that require no co-payment. That is because if you're a low-income household or in a vulnerable household, it doesn't matter if you're getting a \$3,000 discount on a heat pump hot water system – you probably don't have \$1,000 of disposable income needed to carry out that upgrade, or your landlord may not be interested in it. I would love to see more targeted solutions for low-income earners and vulnerable households."

Renters (many of whom may also be considered 'vulnerable') also present a challenging situation. That is because of the disincentive for renters to pay for appliances and equipment that remain with the property (e.g. induction cooktops, air conditioners and hot water systems).

This issue is particularly complex and requires careful attention to the balance between use of the efficiency schemes themselves to drive change, and the development and implementation of complementary policies. The overarching sentiment from the Summit was summed up in the following quote from a participant:

“There are a range of people for whom the energy transition presents a whole lot of issues. And we see it in discussions at multiple levels of government and with business. Everybody calls out the need to not leave people behind. What we'd really like to see is a re-evaluation of the schemes to focus on supporting and enabling the transition, and actually having the equity focus upfront.”

3.6 Leverage and support complementary policies

The role of complementary policies was discussed throughout the Summit. Complementary policies are important as no single measure on its own, including efficiency schemes, can deliver the necessary energy and emissions outcomes. One advantage from a schemes perspective is that complementary measures can help to minimise scheme costs – particularly where other measures are better suited to address particular barriers to uptake in the market.

As was reinforced in the panel discussions, efficiency schemes are particularly well-suited to supporting the rollout of technologies that are sufficiently mature to be taken up in market. However, they are relatively limited in other areas. Table 1 captures some of the complementary measures that were discussed at the Summit.

Table 1: **A selection of complementary measures mentioned at the Summit***

Measure	Relationship	Examples*
R&D incentives	Bring forward new technologies to a point where they can be included in efficiency schemes	Various grants, Research and Development Tax Incentive (R&DTI)
Performance ratings and disclosure	Provide a framework and/or require businesses and households to assess and disclose their energy efficiency performance. Assist businesses to benchmark performance, identify opportunities and engage management	NABERS, Commercial Building Disclosure (CBD) program and mandatory climate-related financial disclosures
Metering and monitoring/ digitalisation funding	Enable consumers and service providers to: Assess benefits to inform business case, Facilitate regular (self) monitoring, Assess performance after installation.	Victorian smart meter rollout, NSW metering grants under the Business Decarbonisation Program

Information	Trusted sources of information can give consumers confidence in the value of energy efficiency, an understanding of available offers and selection of appropriate equipment	ACT Sustainable Advice Program
Training	Improve quality of installations, improve awareness and communication from trusted sources	Heat pump training for plumbers (PICAC)
Financial incentives and loans	Can provide additional financial assistance beyond scheme incentives Can assist with technologies not included in schemes	ACT Sustainable Household Scheme
Appliance standards	Support consumer decisions on appliances, manage quality of products in the market	Greenhouse and Energy Minimum Standards (GEMS)

*This is not intended to be exhaustive. The examples used are primarily those that were mentioned at the Summit.

Several times throughout the Summit, reference was made to the complementary measures for households in the ACT. These included the:

- Sustainable Household Scheme, which provides loans of up to \$15,000 per household to be paid back over 10 years with zero interest and fees;¹⁰
- ACT sustainable advice program which includes phone and email advice;¹¹ and
- ACT Renters' Home Energy Program which provides a free home energy assessment.¹²

GEMS was also mentioned as it provides a nationally consistent approach to product energy efficiency. Additional funding announced in the 2023 budget to expand and upgrade the GEMS program was seen as a significant opportunity to address quality issues in a range of areas, including heat pumps.

¹⁰ <https://www.climatechoices.act.gov.au/policy-programs/sustainable-household-scheme>

¹¹ <https://www.climatechoices.act.gov.au/policy-programs/sustainable-home-advice-program>

¹² <https://www.climatechoices.act.gov.au/policy-programs/renters-home-energy-program>

Grants for metering and monitoring (homes and business) were discussed as a critical enabling measure because meters:

- can help customers to understand their energy consumption, identify opportunities and to evaluate savings once projects are implemented;
- require incentives as it is difficult to justify investment given the energy savings that result are not clearcut;
- are better suited to grants given the difficulties in justifying the direct return on investments in metering and monitoring.

For businesses, the NSW Business Decarbonisation Program was identified as an important example of a complementary policy that would support business uptake of the NSW Energy Savings Scheme.

Jan Rosenow also suggested it is also important to look at what policies don't complement schemes:

"We have seen examples of loans and subsidies available to the market at the same time, which provide incentives for the same measures. This can create confusion and leave customers wondering 'should I go to the efficiency scheme, the grant program or the loan program'? It can get really messy."

This was not universally agreed, and other speakers highlighted that careful planning can actually lead efficiency schemes to leverage other programs and vice versa. However, once again the conversation underscored the importance of careful planning as schemes are reviewed and other policies and programs are developed.

4. How can collaboration be fostered?

"How do we ensure we put people in the centre of the energy transition problem that we are facing? We think it needs much greater coordination and linkage between Schemes and other policies and programs."
– Doug McCloskey (PIAC)

The Summit brought together stakeholders from government, the energy services industry, consumer advocates and research institutions to consider how efficiency schemes can continue to build on their achievements and adapt to new challenges as we accelerate the transition to a net zero energy system.

The final session explored the importance of collaboration between all scheme stakeholders and how to use it to leverage the impact of efficiency schemes.

From the panel and table discussions, key recommendations emerged on why collaboration is important, who needs to be involved, and how it can be fostered.

Why collaborate?

Discussions around the importance of collaboration permeated the Summit. Reasons include:

- to better understand how Schemes work in practice, where they don't and how to improve them;
- better understanding the needs of each stakeholder group and how their contribution can be leveraged;
- greater awareness of strategic challenges and opportunities – particularly electrification, load shifting and making schemes work for vulnerable households and renters; and
- broadening our understanding of how complementary policies interact with Schemes and how Schemes can support other policies

It was widely agreed that collaboration has the potential to leverage the foundation and successes that have already been achieved by the schemes. As Steve Proctor (NSW OECC) said in the post-summit podcast:¹³

"We've been achieving great outcomes individually in different states. I'm really excited about the collective impact that everyone can have if we align and work more together. It will lead to another step change in what we are all doing."

4.1 Key stakeholders

Peta Derham, Branch Manager for the National Energy Performance Strategy, emphasised the importance of partnership and the need to ensure policy draws on the perspectives of all stakeholders.

While the Summit was the first national effort to bring the efficiency scheme administrators together in conjunction with other government representatives and stakeholders, the message throughout the day was that it is important for the focus on multi-stakeholder dialogue to continue.

The Summit provided an opportunity for all of those who attended to get a better understanding of the perspective of key stakeholder groups, their interests and what they can offer. These are summarised for each of the key stakeholders in the section below.

¹³ National Efficiency Schemes Summit 2023: Post event wrap
<https://open.spotify.com/episode/13UdbCY4EwPZclJBg6j3WQ>

Customers

The importance of a customer perspective was well articulated by Kerry Connors (Energy Consumers Australia) in the final panel session which focused on collaboration:

"The reason we talk to customers is because they're the ones who will be able to tell you whether your program is going to work and if it is going to deliver what you expect. They'll test your assumptions about uptake, price behaviour, change and whatever else you're trying to do. They will also tell you where there are going to be barriers to their engagement in the schemes so you can better understand who faces those barriers and what types of customers are struggling to engage.

It is difficult to have a conversation with consumers that is substantive unless you're talking to them about their problems. You need to understand: what's their problem you're solving? It's not the system problem that is important to them."

The focus on customers – particularly those in vulnerable households, was a strong focus throughout the Summit. It underscored the need to include consumer advocates in the design of energy efficiency programs. While there was less focus on 'businesses' as customers, they are another stakeholder group that should be included in future events and planning processes.

The energy services industry

"We need to make the program work for industry – creating the conditions that enable them to make the investments needed and actively market. This creates employment opportunities and the flow on benefits that thriving businesses bring to local communities."

– Rod Woolley (Energy Savings Industry Association)

Throughout the Summit many perspectives were shared the energy services industry including:

- the value of long-term targets to assist them in planning for and investing in the growth of their businesses;
- the considerable upfront investments that are made and the challenge of maintaining cashflow;
- the need for scheme changes to be introduced in advance so they are not caught-out with high inventory loads or situations that put the continuity of their businesses at risk; and
- the importance of scheme integrity so that so that quality and service are not compromised by poor products and unethical service providers.

Governments

Scheme policy designers and regulators ultimately make decisions on scheme design. Collaboration across schemes can help to align and streamline delivery through the energy services industry and other stakeholders.

Beyond the scheme administrators, within governments the importance of engaging with policymakers developing related policies presents an important opportunity to leverage one another's programs.

Discussions around larger goals – such as ensuring schemes are accessible to vulnerable households and deliver health and financial benefits to them – highlights the importance that energy 'departments' also engage with health, housing and industry policy makers – given there will be common goals and the potential to leverage programs to enhance funding and impact.

Development of the National Energy Performance Strategy (NEPS) by the Commonwealth Government was also seen as a unique opportunity to better coordinate the range of energy efficiency and decarbonisation policies currently in place, and to ensure that as new policies and programs are being developed they support existing efficiency schemes and vice versa.

Researchers

While research institutions are not direct participants in Australia's schemes, they are often involved in scheme evaluations and the development of complementary policies. Therefore, they can provide an important 'evidence based' perspective.

4.2 Ways to support collaboration

Collaboration doesn't work well when forced. To be effective, it requires the parties involved to identify a benefit from collaboration, and be willing to share and be open to change. Without these foundations, collaboration typically fails. Failure typically leads to a lack of trust and goodwill and can leave the parties involved even more focused on their own activities with less regard for contributing to broader, collective goals.

A key reason for the success of the Summit was that stakeholders involved were open to sharing their perspectives and learning from others. It helps that there is widespread recognition that to decarbonise at speed and in a way that doesn't leave people behind requires maximising the impact of available resources, and new ways of thinking.

An important starting point for considering future collaboration is to recognise the approach and success of the summit. This was the first event of its type. It was unique in the combination of stakeholders it brought together and the opportunity for them to share perspectives on schemes from their point of view. Importantly, discussion was

focused on higher level strategy – exploring emerging opportunities and challenges with suggestions for the schemes – rather than focusing in on the detail of the schemes.

In the final panel session and small group roundtable discussions, participants were asked to suggest ways to continue the momentum of the collaboration that was achieved.

There were a range of views – including suggestions there could be a single national scheme. Overall, however, there appeared to be a broad consensus of the need for:

- Regular communication between efficiency scheme administrators and regulators to streamline scheme design and delivery;
- Regular and consistent input from efficiency scheme stakeholders including the energy services industry, consumer groups, researchers and governments to share lessons learned and inform changes to Scheme design and delivery;
- A structured and transparent collaboration process for all stakeholders to support continuous improvement;
- The opportunity for efficiency scheme stakeholders to feed into and inform the National Energy Performance Strategy (NEPS); and
- The importance of identifying and progressing tangible improvements to align efficiency schemes where it is valuable to do so.