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## **Final Report**

**on**

# **Consumer Research to Guide the Next Round of Refrigerator and Air-Conditioner Labels**

**Conducted for**



**29 October 2007**

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## Executive Summary

This report is based on a series of six focus group discussions with consumers and fifteen in-depth interviews with retailers conducted during June and July 2007 in Australia and New Zealand for the Equipment Energy Efficiency Committee (E3) through the Department of the Environment and Water Resources, to guide the next round of refrigerator and air-conditioner energy efficiency labels.

Initial research investigating possible changes in refrigerator labels to accompany a revision of the rating algorithm and rescaling of star ratings was included in our major qualitative research in 2003. That research suggested that replacing the green band with a red band would differentiate the two labels while also reducing the number of label colours for printing. Research since then has indicated that while the red behind the stars and in the consumption box continue to be acceptable as an integral part of the overall highly recognised and well-respected energy rating label design, there was increasing concern about the implication of more red, an arresting colour suggesting danger, caution and hesitation, especially when it would be replacing green, an assertive colour suggesting confidence and safety.

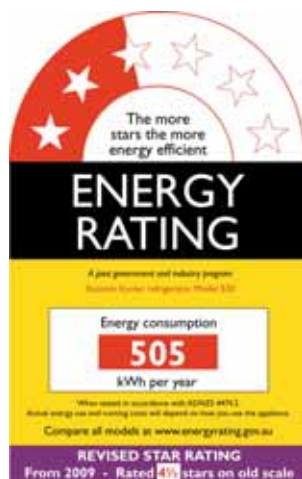
The decision was therefore taken to test a purple band to replace the green band, and this tested very well indeed, but with the proviso that just changing the colour of the band would not achieve much by itself with many consumers – during the period of transition any change needs to be accompanied by explanatory communication at point-of-sale, preferably including a message in the band itself.

### Refrigerator Label Progression:

On existing stock the clear preference is for retention of the current label and addition of the new label with the reduced number of stars and a purple band containing the messages of “revised star rating” and “from 2009”.



The clear preference for labelling new stock according to most consumers and retailers was for the new label with the reduced number of stars and a purple band containing the messages of “revised star rating” and “from 2009”, as well as a clear indication of its rating on the old scale.

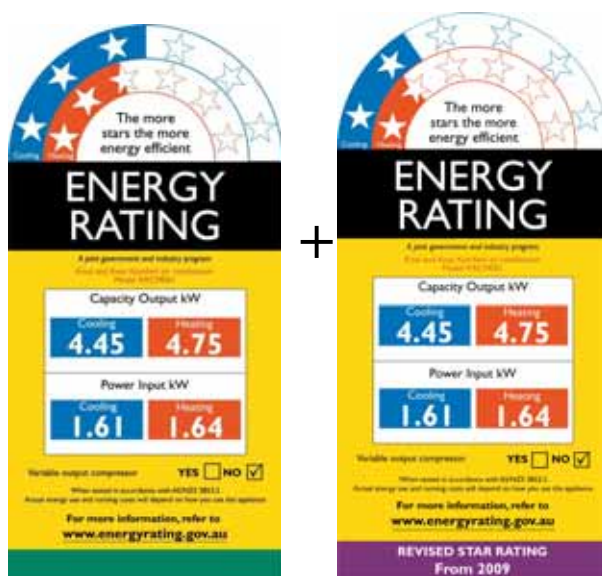


## Air-conditioner Label Progression:

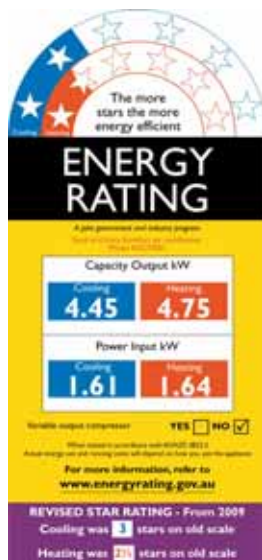
Earlier research (eg, our major 2005/6 quantitative study) has shown that the purchase decision process is more complex for air-conditioners than for refrigerators, and retailers, specifiers and/or installers often play a significant role. The portrayal of a “capacity output” figure as well as a “power input” figure (for each of heating and cooling in the case of reverse cycle units) further complicates the situation for many consumers. Air-conditioner labels already carry an extra colour compared to refrigerator labels, with blue being used behind the stars and in the output/consumption boxes for the cooling cycle (with the usual red in both cases for the reverse cycle arch and consumption boxes).

Notwithstanding the extra colour (blue) on air-conditioner labels, purple emerges just as positively as for refrigerator labels as the colour to replace green on the band when revised air-conditioner algorithms and star ratings are introduced.

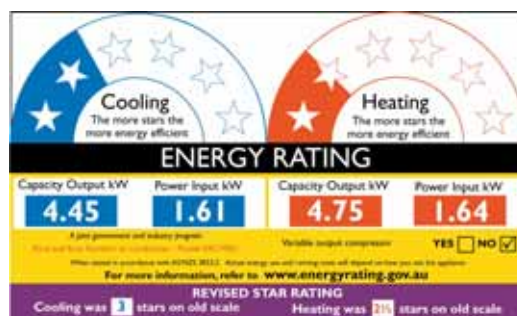
As with refrigerators, the clear preference for existing air-conditioner stock according to most consumers and retailers was the retention of the current label and addition of the new label with the reduced number of stars and a purple band containing the two messages of “revised star rating” and “from 2009”, as illustrated below. Where there is insufficient room to place a second label on the appliance itself, the use of a swing tag is considered preferable to covering up or attempting to replace the existing label. A modified “side-by-side design for the new label for reverse cycle models may assist this process. [See 3.3.1.2]



As with refrigerators, the clear preference for labelling new stock of air-conditioners according to most consumers and retailers was for the new label with the reduced number of stars and a purple band containing the messages of “revised star rating” and “from 2009”, as well as a clear indication of its rating on the old scale. In order to render the label for reverse cycle models easier to read and understand, and also in order better to fit the available space on the front panel of many models, an alternative shape for the new label has been developed, which portrays the cooling and heating cycles side-by-side rather than mixed together as on the current label.



and/or



## Conclusions and Recommendations:

In the case of both refrigerators and air-conditioners:

- In terms of label design:
  - Replace the green band with a purple band
  - During the transition period, include messages in the purple band as described below.
  - For reverse cycle air-conditioners, for greater understanding and also easier application, adopt the horizontal “side-by-side” version as appropriate.
- In terms of label use:
  - For stock already on the showroom floor (or in transit with old labels) at the time of transition, add the new label as soon as practicable (retaining rather than replacing or covering up the old label<sup>1</sup>) with the purple band containing the messages:
    - “revised star rating”
    - “from 2009”
  - For new stock during the time of transition, use only the new label with the purple band now containing the following messages:
    - “revised star rating”
    - “from 2009”
    - “rated *xx* stars on old scale”
  - For new stock after the transition period ceases, use the new label but with a plain purple band (as the messages are no longer needed).

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<sup>1</sup> If the decision is made to replace or cover up the old label, this will require adding the message “rated *xx* stars on old scale”.

# 1. Introduction

This report is based on a series of six focus group discussions with consumers and fifteen in-depth interviews with retailers conducted during June and July 2007 in Australia and New Zealand for the Equipment Energy Efficiency Committee (E3) through the Department of the Environment and Water Resources, to guide the next round of refrigerator and air-conditioner energy efficiency labels.

## 1.1 Background

Some years ago Minimum Energy Performance Standards (MEPS) were introduced for refrigerators and air-conditioners. New MEPs levels have already been implemented or are scheduled to come in the coming years, and new algorithms have been prepared, the main outcome of which will be to scale back most models significantly. In both cases, to avoid confusion among consumers and retailers, it is proposed to revise the energy efficiency label design, to clearly communicate these change. Some other modifications and/or additions have also been discussed, including the potential role of the Energy Star label, at least for refrigerators.

We first examined the proposed revision of the energy efficiency label in our major qualitative research study in 2003, and have subsequently canvassed various associated issues in a discussion paper in July 2005 and a position paper in March 2006. A round table discussion was held with industry on 12 April 2007 which helped to clarify what transition elements are feasible and desirable from an industry perspective.

Now that the revised algorithms have been largely determined, it was resolved to conduct further research to establish future directions for the revised label design that will be associated with the new algorithms. A series of mock-up labels was then developed to demonstrate how some issues might be handled and for testing in the research.

## 1.2 Study Objectives

The broad objectives addressed in the research were:

- To monitor the appliance purchase decision process generally:
  - Any changes in awareness, attitudes, behaviour, intentions;
  - The role of appliance labels.
- To establish how best to differentiate the revised label visually:
  - during and following the transition for refrigerators, including:
    - colour of band;
    - wording in the band;
    - colour of other elements;
    - other label design elements;
  - during and following the transition for air-conditioners, including:
    - colour of band;
    - wording in the band;
    - colour of other elements;
    - other label design elements;
    - simplification of design for reverse cycle models;
    - possible inclusion of a 'demand response' message.
- To investigate a number of related ideas:
  - what the findings indicate for label transitions for other products;
  - how best to emphasise the [www.energyrating.com.au](http://www.energyrating.com.au) website on labels;
  - the option for adding the Energy Star label on eligible models.

## 2. Methodology

The research approach adopted for the study was wholly qualitative in nature, involving six focus group discussions with consumers and 15 in-depth interviews with retailers in Sydney, the Gold Coast and Auckland during June and July 2007.

The six focus group discussions (8 to 10 consumers per group) were arranged as follows:

- Three focus groups with recent and intending purchasers of refrigerators (range of sizes), to concentrate on the refrigerator label (and review the air-conditioner label in passing), and
- Three focus group discussions with recent and intending purchasers of (single phase) air-conditioners (mostly reverse cycle, some cooling only), to concentrate on the air-conditioner label (and review the refrigerator label in passing).

The reason for suggesting inclusion only of recent and intending purchasers (ie, rather than 'ever' purchasers) is that the issues are immediately potentially relevant to them:

- Intending purchasers = what will I do with this information in my imminent purchase?
- Recent purchasers = what would I have done with this information in my recent purchase?
- Non-recent/intending = this information isn't relevant to me at the moment, so why are you asking me?

The reasons for conducting separate focus groups for refrigerators and air-conditioners rather than mixing them up, are as follows:

- While most people have been and/or expect to be involved in the purchase of a refrigerator, far fewer people have been and/or expect to be involved in the purchase of an air-conditioner, so groups containing only recent and intending purchasers of both appliance types would be skewed to that lesser group, and
- From our earlier research we know that the purchase decision-making process (and the people involved) is somewhat different for air-conditioners (even single phase/single room models) compared to refrigerators.

We conducted two focus groups (one refrigerators, one air-conditioners) in each of three cities:

- Sydney – the city with the largest population in Australia,
- Gold Coast – the fastest growing urban area in Australia with many sea changers and younger families, with a high proportion of homes having air-conditioners, and
- Auckland – the city with the largest population in New Zealand.

Given the potential importance of the role of retailers in supporting and communicating the revised labels, we also conducted a series of in-depth interviews with a small sample of 15 retailers of refrigerators, freezers and single phase air-conditioners in Sydney and Auckland.

### 3. The Study Findings

This section of the report presents and discusses in some detail the main findings to emerge from the study.

Where appropriate, extensive use is made of verbatim quotations from participants in the consumer focus groups and from retailers. Quotations are identified as follows:

[yc] Younger consumers (18 to 39 years)

[oc] Older consumers (40 to 69 years)

[r] Retailers

#### 3.1 *The Appliance Purchase Decision Process Updated*

As reported many times before, people tend to choose a refrigerator by firstly short-listing several models that best meet their needs in terms of affordability, whether it fits the space available while also meeting their requirements in terms of capacity, looks, brand, warranty, colour, and for some, its energy efficiency (or at least that it is not overly inefficient – ie, reject any models under, say, 2 stars). Once they have this short-list, the energy label then has greater weighting for many in that with all other things being more or less equal, they may well then choose the most (energy) efficient.

In the current Australian groups, more people than ever before seem to be mentioning energy efficiency and/or the star rating label as one of their first considerations when choosing a refrigerator, and nearly everyone says that they now refer to it at some stage in the purchase decision process. In the New Zealand groups (Auckland) things do not seem to have shifted as much as in Australia, with only around half (in each group) claiming to refer to the labels.

*All our appliances were older, and our electricity prices were very high. We should have changed them sooner, but we weren't in the position to do it. Now we're updated to new appliances in a lot of cases and have two fridges running. The oldest appliance is now five years old and we would save about \$150 a month at least over what we were paying a few years ago. We bought the highest star rating we could find for most appliances, but stove-tops didn't seem to have star labels so we were floundering a bit there. [yc]*

*All other things equal, I'll get the most energy efficient, 6 stars if possible. [oc]*

*Energy efficiency and star ratings are crucial to us these days, what with rising prices and the threat of climate change it's hard to ignore them anymore. [yc]*

*First thing I'd do is compare with other fridges, and see where the star feature is working in their favour, toss out the bad ones and pick one of the good ones. [yc]*

*I'd look at the star rating first off these days. [oc]*

*Accessibility and where everything is placed are important, but it has to be efficient, too, in fact that's more important really. [oc]*

*If you can buy a fridge dirt cheap at one of the big discount stores, it's huge and looks fantastic, that (the energy label) will be down the line from all the other things. It will only come into play when you have a choice to make between similar fridge models, or if it shows, say, only one star which means the high running costs may cancel out the price reduction. [oc]*

There were several mentions in each of the Australian groups (Sydney and the Gold Coast) of the TV program “Carbon Cops” as waking people up to just how much electricity some appliances use, including second and third fridges.

*That show has really grown on our family, we've learnt so much from it. I know the presenters come across as earnest young holier-than-thou do-gooders, but they do make some very good points and even my husband, who can't stand them, decided it was worth persevering with. We were about to buy a new 4WD and a larger two-door family fridge, but because of that show we've decided against both. Plus we've ordered a cover for the swimming pool. [oc]*

*They're great how they get the families all enthusiastic about what they can do and then follow them up to help them. We've learnt a lot from it. [yc]*

*It's interesting, the day after the first program aired we had people coming into the store asking where they could buy one of those meters that tells you how much power your house is using at any one time, the one with the green, orange and red lights where you try to get down to all green lights. [r]*

On the other hand there was almost no recall in any of the groups of the 4-Corners program that included a segment on incorrectly labelled air-conditioners imported by a small Australian importer/retailer.

In several of the groups, lively discussions emerged about plasma TVs, with men saying it is essential for good quality and definition of sports programs and women (not related) scolding them for the waste of electricity – there seems to be growing awareness that plasma TVs use more electricity than LCD or cathode ray TVs in general terms, but not yet of the magnitude of the differences.

*I bought a 42 inch plasma TV the other day, but you know what I also did, I had the power point moved so we can easily switch if off or unplug it at the wall, because I know how much power they chew up on standby. [yc]*

*It's only a TV, and it's modern plasma technology, it couldn't possibly use as much electricity as a family fridge, could it? [yc]*

*We bought a plasma TV for the football. I thought it will probably use more power than our old TV because it's twice as big, but we only have it on for four or five hours each day so it's hardly going to use much overall, really. [oc]*

The rush to air-condition continues unabated. In fact their greater energy efficiency compared to room heaters, and greater perceived effectiveness compared to evaporative coolers and fans seem to be their greatest selling point, with absolute electricity usage being considered less often.

*We also bought an air conditioner, that made a difference, as we now don't have fans running all the time. That's a big saving with us, not having five fans running all the time. ... No, I don't actually know the actual amount of electricity the fans consumed, but it must have been more than the air-conditioner because they were big fans and we had them running 24/7, whereas the air-conditioner turns itself off a lot of the time. [yc]*

*We had our dream home built last year (Gold Coast) for our retirement. I was hoping we could get away with large fans and breezeways like in our old house (a Queenslander), but the builder convinced the missus that modern house designs require air-conditioning here on the coast, so we've got air-conditioning to suit a modern house that doesn't even have eaves, let alone wrap-around verandahs like our old place. Heaven knows what the power bills will be like, but if you've got to have it, you've got to wear the cost. [oc]*

People say that they rely far more on the salesperson's (or in the case of larger systems, the specifier's) advice regarding air-conditioners than they do with refrigerators.

*I like asking opinion of the sales person, and ask them what type they have at home. [oc]*

*I guess I could choose single room air-conditioners myself, but I'd prefer to seek advice if I am going to do the whole house. [yc]*

Although a few people suggest that many refrigerators are similar in their star ratings, most have not observed this or disagree – there is certainly no broadly held view among consumers at this stage that refrigerators (or air-conditioners) are bunching near the top of the star scale.

*You don't see too many one-star or even two-star fridges anymore, except in the very small range such as bar fridges, but the rest are spread pretty widely across the scale. [oc]*

*We couldn't find a six-star fridge in our price range, but there were plenty of three-star and four-stars and a five-star to choose from. We bought a 4½-star, as the five-star was a brand we don't know much about. [yc]*

*BUT*

*What made us choose one fridge over another? The one we chose came with a gift voucher for kitchenware and that is what made me buy it, they are all much of a muchness in terms of price and star ratings. [yc]*

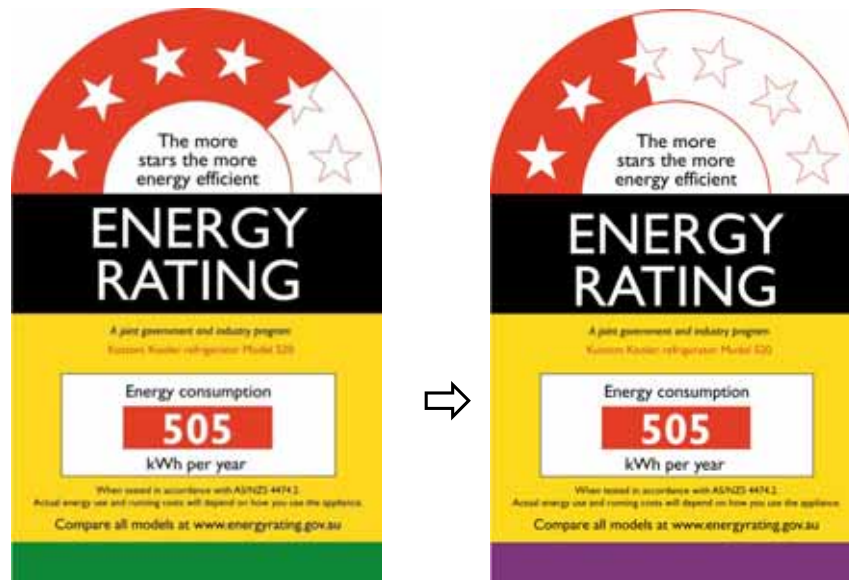
## 3.2 Refrigerator Label Progression

Initial research investigating possible changes in refrigerator labels to accompany a revision of the rating algorithm and rescaling of star ratings was included in our major qualitative research in 2003. That research suggested that replacing the green band with a red band would differentiate the two labels while also reducing the number of label colours for printing.

Research since then has indicated that while the red behind the stars and in the consumption box continue to be acceptable as an integral part of the overall highly recognised and well-respected energy rating label design, there was increasing concern about the implication of more red, an arresting colour suggesting danger, caution and hesitation, especially when it would be replacing green, an assertive colour suggesting confidence and safety.

### 3.2.1 Colour of the Band for the Algorithm Change

The decision was therefore taken to test a purple band to replace the green band, and this tested very well indeed, but with the proviso that just changing the colour of the band would not achieve much by itself with many consumers – any change needs to be accompanied by explanatory communication at point-of-sale, preferably including a message in the band itself.



Purple emerges very well as a replacement colour for green on the new labels, but will need further explanation (see below).

*That's different, I like the purple, it stands out like the green does, but why is it different? Maybe are they changing the way the stars are calculated, you know, making it tougher, it looks like it because it's only 2½ stars whereas the other one is 4½ stars? [yc]*

*I did a double-take as soon as I saw it, I didn't know what it was but I knew straight away that it was different from the current labels. It was the purple band that did it. [r]*

*That doesn't say much to me except it's not a very efficient fridge, you'll have to tell people what's changed. [oc]*

*Last time you talked to us you thought it would be red, I think, and we said why not a colour that's not already on the label, and this is more like what we meant, and purple is a good contrast to green while still being soft.. [r]*

*Purple is a great colour, different from the rest of the label. [r]*

*The purple stands out, it's obviously not what we have now so you stop and think "what's going on?". [r]*

*If you are in the shop where they are changing over and there are two labels on them, that would give you a fright if you only saw two stars on this one, it would need some explanation. [oc]*

*If you just look across at the numbers though, the stars can be confusing ... same consumption but two different star ratings, it's a bit dodgy unless you explain why. [oc]*

*No, it's not dodgy at all, it's obvious to me, the one with the purple at the bottom is a new label that's getting tougher on efficiency – the fridge that was 4½ stars until recently now only gets 2½ stars as they get tougher on the manufacturers. [oc]*

## 3.2.2 Communicating the Change

### 3.2.2.1 For existing floor stock of refrigerators (ie, stock that has left the manufacturer's or importer's warehouse before the change in labelling rules takes place):

Various scenarios were tested regarding the labelling of existing stock after the change occurs, including:

- Retaining the current label by itself (as this was correct at the time of manufacture).
- Retaining the current label and adding a new label with the reduced number of stars and a plain purple band, or a purple band containing one of several messages.
- Replacing (or covering over) the existing label with a new label with the reduced number of stars and a plain purple band, or a purple band containing one of several messages.

Of these options, the clear preference according to most consumers and retailers was the retention of the current label and addition of the new label with the reduced number of stars and a purple band containing the two messages of “revised star rating” and “from 2009”.

*That says it all, it tells me what it was, what it is now, why it has changed and when, and it's simple to do. [yc]*

*Whether you are going to have us put it on as an extra label or replace the existing one, it has to say what it is, you can't just have a different colour with no explanation. [r]*

*I like that. We'll want to get rid of the old stock quickly when we know it's about to change, so this would help us in trying to speed the process along. [r]*

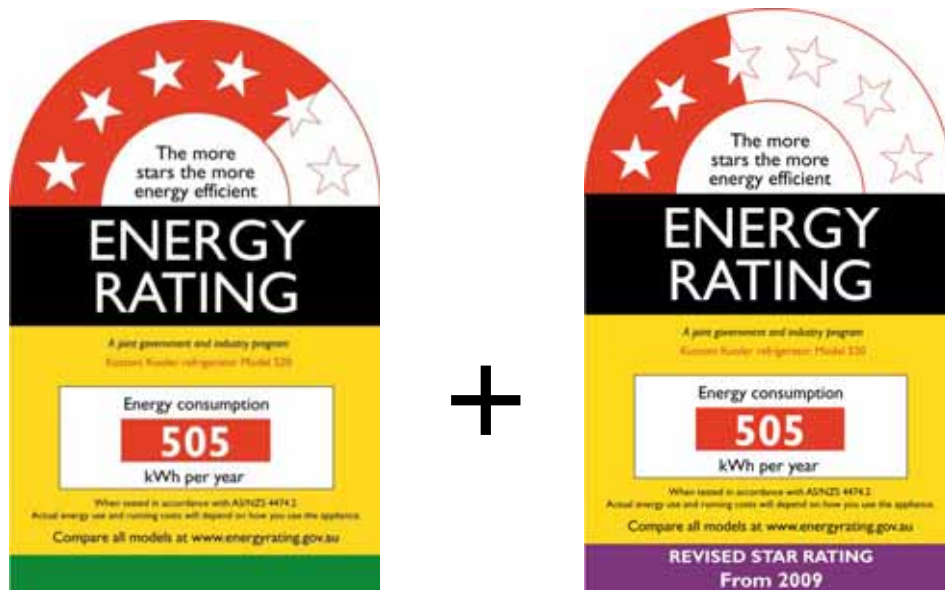
*Numbers are the same, it says it uses the same kilowatts, but they've lowered the stars, they must be getting more efficient as time goes on so they are making it harder to earn the stars. [oc]*

*What it says straightaway to me is that their standards have changed and the baseline has moved. [oc]*

*They must have scored it too easily before, and now they've corrected it. [oc]*

*BUT*

*From memory we had a lot of brochures and signs when they changed the star ratings on fridges last time, and they helped a lot to explain it to our customers. [r]*



On existing stock the clear preference is for retention of the current label and addition of the new label with the reduced number of stars and a purple band containing the messages of “revised star rating” and “from 2009”.

Most consumers and retailers did not like the idea of simply retaining the old label (ie, and nothing else) on old stock mainly on the basis that it would be confusing and could be considered to be misleading if it encouraged someone unknowingly to buy the old stock simply because it displayed more stars than the new stock.

*That's not right, is it? Once the rating is changed, they should all show the new rating, not just the new stock. [oc]*

*I'd need to talk to our legal people about that, wouldn't it be false advertising just to leave the old one on when it no longer applies? [r]*

*I'm sure some of our cut-price competitors would love it, but is it right, I don't think so. [r]*

Replacing or covering up the old label with a new label had some supporters, provided that the new label also indicated what star rating that model had achieved on the old scale. The main objections to this option (among both consumers and retailers) was that removing the old label can be difficult to do neatly and without damaging the appliance, and that covering the old label with the new one may look untidy and could be abused.

*Have you ever tried to get a label off a fridge? Once they are on they are there to stay, I've still got the labels on all my appliances at home and so have my friends. [r]*

*I don't like the idea of it being stuck over the old one, I'd be very tempted to peel it back to see what the old one says, and it could get very dog-eared.. [oc]*

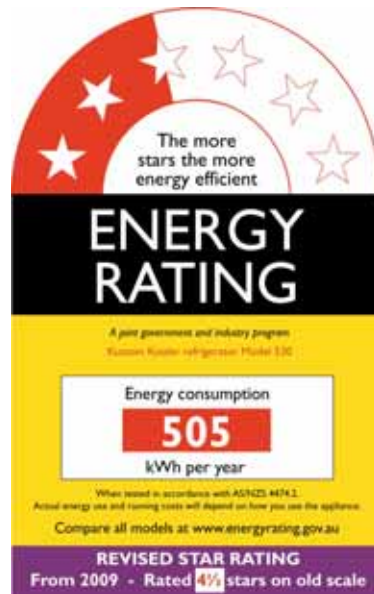
*That would work OK on new stock, but who's going to remove the old label on existing stock, and how do you do it anyway without risking damage to the surface, or can we just paste the new one on top of the old (one), but then that will look real makeshift and dodgy. [r]*

**BUT**

*Why wouldn't they as of today redo the labels, send out the message to the companies that this is the label you now have to have, make them take off the old label and put the new one on? [oc]*

**3.2.2.2 For new floor stock of refrigerators (ie, stock that leaves the manufacturer's or importer's warehouse after the change in labelling rules takes place):**

The clear preference for labelling new stock according to most consumers and retailers was for the new label with the reduced number of stars and a purple band containing the messages of “revised star rating” and “from 2009”, as well as a clear indication of its rating on the old scale.



*If it's going to be the only label, it has to have all that info, otherwise there will be too many questions left unanswered, especially if it's sitting next to one with the old label. [oc]*

*I seem to remember they tried to do this last time with the new labels but it petered out because some suppliers opposed it. I think things have changed, the manufacturers now support the labels, so I don't think they'll oppose it this time. [r]*

*That one has more explanation, it makes it more sensible and easy to understand. I'm comfortable with that, but I'd be concerned if you left off any of those bits of information.. [oc]*

*In the changeover period it's definitely not too much information. Once there are no more old labels around then it doesn't matter any more, but until then it really needs to be as clear as this. [oc]*

*The more information it gives you, the less you have to believe the salesman. [oc]*

*Not too wordy at all, you glance at the stars and glance at the explanation and in two seconds you have worked out what it is all about. [oc]*

*The more information that is on there, when you are walking around the shop, we don't know this and we haven't had this conversation with you, just walking around the shop, if it's said it's revised and from 2009 and what it was on the old scale, without knowing all this information from you, you can understand what has happened. [oc]*

### 3.3 Air-conditioner Label Progression

Earlier research (eg, our major 2005/6 quantitative study) has shown that the purchase decision process is more complex for air-conditioners than for refrigerators, and retailers, specifiers and/or installers often play a significant role.

*I feel confident buying a new fridge, you know exactly what you want and the label tells you exactly what you are going to get in terms of how much electricity it uses and how efficient it is likely to be, but air-conditioners are harder. I know I want one which will cool the house in summer and heat it in winter, but I don't know what size of unit will do that satisfactorily or whether to have several in different rooms or one big one for the whole house. So fridges I buy myself, air-conditioners I seek a lot of advice from people as expert as I can find. [oc]*

The portrayal of a “capacity output” figure as well as a “power input” figure (for each of heating and cooling in the case of reverse cycle units) further complicates the situation for many consumers.

*It makes some sense the way you explain it, just, but when you go into a shop and are looking at those things, if there isn't someone to explain it to you then it doesn't mean a lot. I understand the stars, you know, the more stars there are the more efficient it is, it's all the crap down the bottom I don't understand, it doesn't make a lot of sense to me at all. [oc]*

*I had real problems looking out for six months now, and I get totally confused, everyone brings out models with different ratings, different kilowatt outputs for cooling and heating. Can't they put just the one figure averaging out the two, so we can actually compare models? [yc]*

*The bottom figure is telling you, like the fridge, that it's the amount of electricity it uses, and the top one is like its size, not in volume like a fridge but in how much heat or cold it produces. I figure if you divided the top number by the bottom number you'd probably get an idea of its efficiency that the stars are based on, but it's a bit confusing not having that third number. [oc]*

*Shouldn't they maybe dumb down the stickers a bit more – like you explained it, energy in, and this is what you get out of it. [oc]*

#### 3.3.1 Colour and wording of the Band for the Algorithm Change

Air-conditioner labels already carry an extra colour compared to refrigerator labels, with blue being used behind the stars and in the output/consumption boxes for the cooling cycle (with the usual red in both cases for the reverse cycle arch and consumption boxes).

Notwithstanding the extra colour (blue) on air-conditioner labels, purple emerges just as positively as for refrigerator labels as the colour to replace green on the band when revised air-conditioner algorithms and star ratings are introduced.

*Purple presents no conflict with the red or the blue, in fact isn't purple actually a mixture of the two? It looks good, better than the green, actually. [r]*

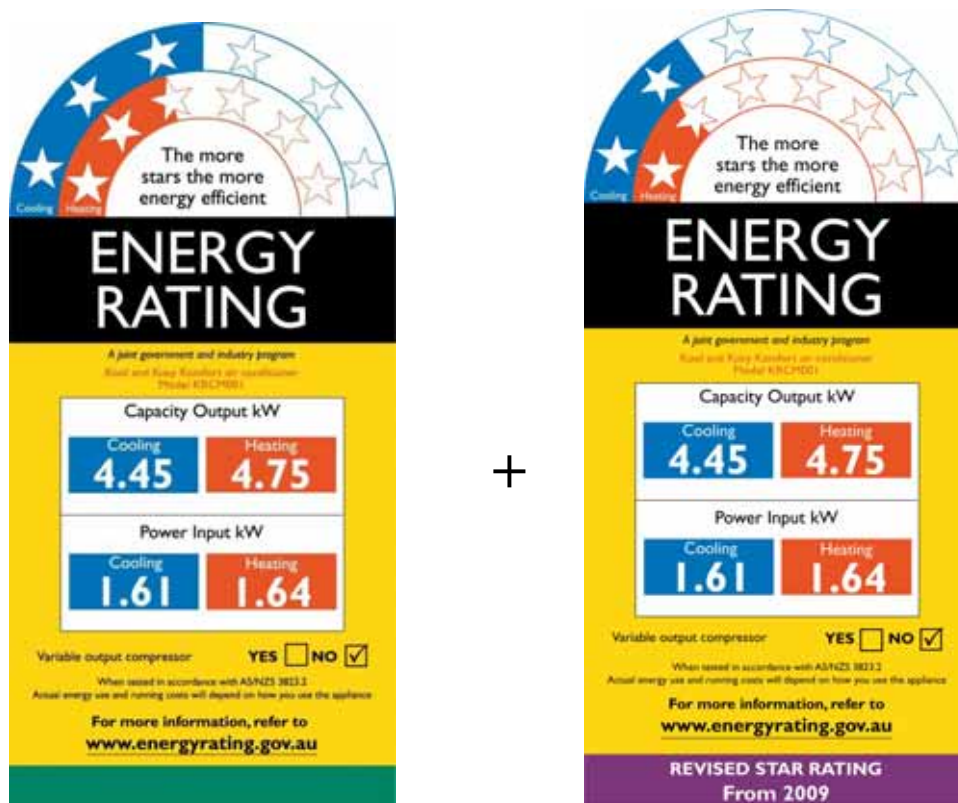
*If you use purple for fridges, you should use the same colour for each of the other appliances as you revise their star ratings, assuming that everything else is improving over time as well. I have no problems with it against the red or blue. [yc]*

*If it happens on fridges first, and everybody sees lots of fridges in stores all the time, then we'll all be prepared for when it happens on air-conditioners, so you have to use the same new colour for air-conditioners as you will have done for fridges. [oc]*

##### 3.3.1.1 For existing floor stock of air-conditioners (ie, stock that has left the manufacturer's or importer's warehouse before the change in labelling rules takes place):

As with refrigerators, the clear preference for existing air-conditioner stock according to most consumers and retailers was the retention of the current label and addition of the new label with the reduced number of stars and a purple band containing the two messages of “revised star rating” and “from 2009”, as illustrated

below. Where there is insufficient room to place a second label on the appliance itself, the use of a swing tag is considered preferable to covering up or attempting to replace the existing label. A modified “side-by-side design for the new label for reverse cycle models may assist this process. [See 3.3.1.2]



*The current stock already carry labels, so on some it will be difficult to find room for a second label as well, but it could be a swing tag like we are allowed to use on some already. Whatever, I still think it's better to display the old and the new rather than trying to replace or cover up the old label with the new one. [r]*

*I'd want to be putting all my effort into getting rid of the existing stock quickly, even at substantial discount. Because once the new stock comes in, it will be difficult to get rid off the old stock whichever way it's labelled. [r]*

*What those two labels are telling me is that this model is still as efficient as it was, after all it still uses the same amount of power, but that someone has decided it should be rated lower now, presumably because newer models are more efficient and they needed to make room for them on the label. [yc]*

*It's exactly like it says, they've revised the star rating and this model doesn't stack up so well anymore. [oc]*

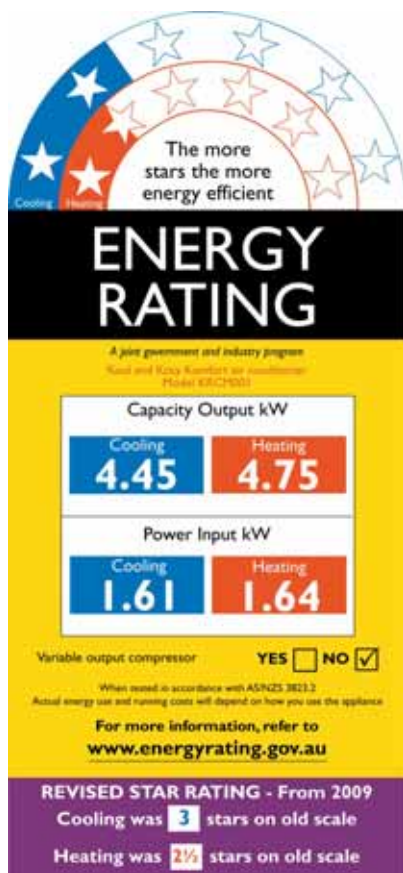
The fact that the air-conditioner labels will be changing some time after the refrigerator labels will mean that many consumers will already be familiar with the purple band on refrigerator labels, hence the change with air-conditioner labels should be perceived generally as a logical progression. However, for many consumers it is likely to require more input, advice and guidance from retailers, specifiers and air-conditioning specialists, who will need to be briefed and trained effectively to handle it.

*We mainly sell single-room air-conditioners where it's not such a problem because in the showroom they look like other electrical appliances and customers can compare the real thing – the labels do and will continue to work well, there. But once you start looking at the bigger units, people are looking for a lot more guidance. [r]*

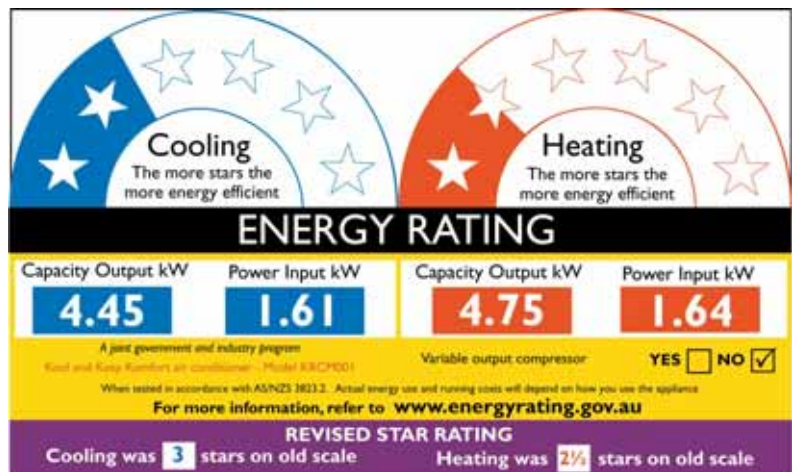
**3.3.1.2 For new floor stock of air-conditioners (ie, stock that leaves the manufacturer’s or importer’s warehouse after the change in labelling rules takes place):**

As with refrigerators, the clear preference for labelling new stock of air-conditioners according to most consumers and retailers was for the new label with the reduced number of stars and a purple band containing the messages of “revised star rating” and “from 2009”, as well as a clear indication of its rating on the old scale.

In order to render the label for reverse cycle models easier to read and understand, and also in order better to fit the available space on the front panel of many models, an alternative shape for the new label has been developed, which portrays the cooling and heating cycles side-by-side rather than mixed together as on the current label.



OR



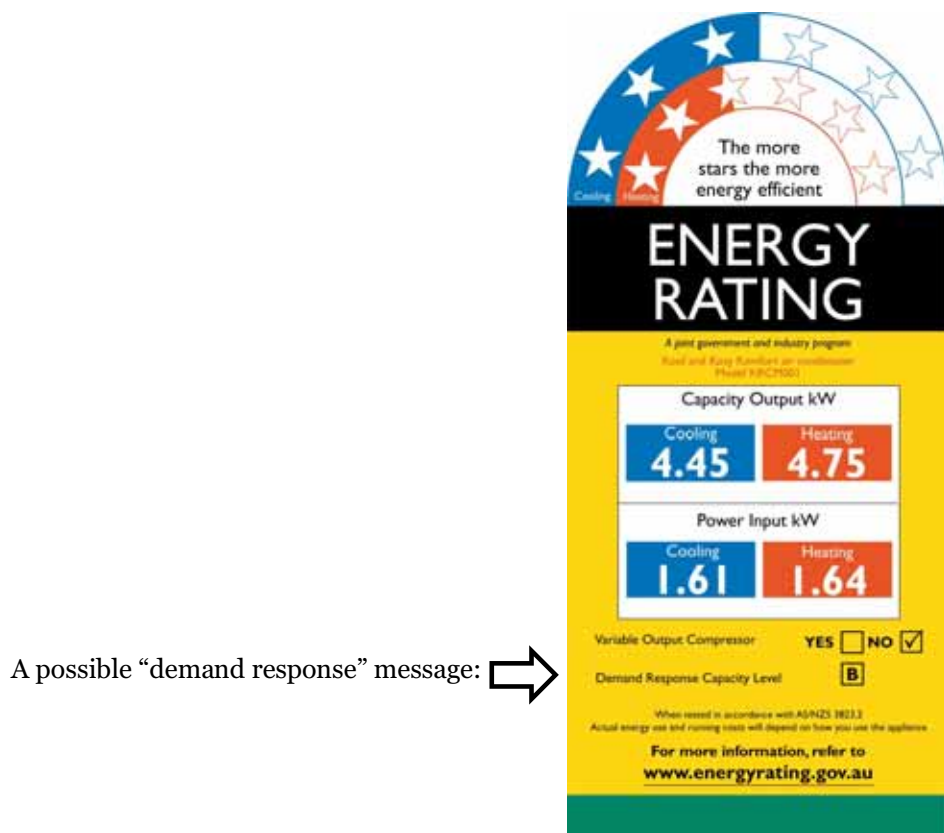
*At least this wide one separates the heating from the cooling. That’s a good start, it’s not as daunting. [oc]*

*You know, I’ve never really understood the air-conditioner label, but this new one helps a lot by untangling the heating and cooling into two separate labels within the one label. I still don’t understand how you can get out more than you put in, but at least it says it more clearly here. [yc]*

*This is better, at last some designer has actually looked at an air-conditioner and realised they are wider than they are high so the label needs to be the same – good one. [r]*

### 3.3.2 The Possible Inclusion of a “Demand Response” Signal

The possible inclusion on future air-conditioner labels of some kind of message identifying air-conditioner models that are able to respond from a signal from the power supplier in terms of demand management was briefly considered in the current study, using the highlighted one-line entry on the following mock-up label.



The purpose and meaning of the message was not at first evident to any consumers in our groups, nor to most of the retailers. Response to a verbal explanation of the concept indicated that the message as portrayed adequately represented the situation once people were made aware of it, but that there are quite widespread negative reactions to the concept of a power company being able to control their air-conditioner use.

*I think every house in our suburb which is quite new has air-conditioning, we have to because it gets very hot on the coast here in summer. They gave the go-ahead for all these new estates (Gold Coast), but now Premier Beattie is telling us that we may not have enough electricity for our air-conditioners, so presumably this is their response: are they going to penalise us by controlling when we can't use our air-conditioners? [yc]*

*You should be encouraging us to buy the most efficient air-conditioner to meet our needs, not to tell us we can't have one, or worse still tell us we can have one but that the government will decide when you can or can't use it, this isn't Russia, you know. [oc]*

*Is it like the old off-peak one and off-peak two? If it is that's not going to work with air-conditioners – people will go berserk if the power company turns their air-con off in the middle of a hot day. [r]*

*The idea is for governments to generate enough electricity to satisfy demand, not castigate people for trying to use it. [r]*

*Consumers will need to be told a lot more about it than just a one-line entry on the label. And you'd better explain it to us retailers real quick, too. [r]*

**BUT**

*What I get from what you're saying is that we don't have to buy one of these government controlled models, but once we do we're in their hands. I don't see anything wrong with*

*that – if you're stupid enough to buy one in the first place, even if there is a discount or a rebate or some sort of subsidy, then you deserve what you get. [oc]*

### **3.4 Broader Labelling Considerations**

We took the opportunity to look at a number of related labelling issues which are discussed briefly below together with some consumer and retailer reactions:

#### **3.4.1 The Colour of Other Label Elements**

Consumer and retailer reactions to the overall energy label colour scheme continue to be overwhelmingly positive, and apart from the positively testing change of the bottom band colour from green to purple to signal the revision of star rating algorithms, no further colour changes are suggested.

*Everybody recognises it and with growing urgency about climate change not to mention threats of electricity price increases, it is more important than ever, so why would you change it at all? [yc]*

*If it ain't broke, don't try to fix it. [r]*

*The rest of the label is fine like it is, people know and like it. [r]*

#### **3.4.2 Confirming Label Design Elements**

As discussed at length in earlier studies, different people use the labels in different ways, so while the stars may be more important than the numbers to some people, the numbers are more important than the stars to others, and there are many people who use both the stars and the numbers.

Similarly, while many people ignore most (or all) of the detailed information, many others still read it occasionally or at least seek the assurance that it is still there.

The use of half-stars is well-understood and accepted, but any further dividing up of the stars (eg, into tenths as was done with the gas label) is negatively viewed as overcomplicating a simple concept. So in short we recommend that the label design be retained as it is.

*I love the idea of the stars and half-stars, it's just like with hotels, and we all relate to that. [yc]*

*Like I said before, it's fine the way it is, if it ain't broke, don't try to fix it. [r]*

*Most customers understand the label these days so leave it as it is. [r]*

#### **3.4.3 Portrayal of the Website on Labels**

Traditionally the labels have contained one of the following messages in slightly heavier black print in the lower portion of the yellow body of the label:

**Compare all models at  
[www.energyrating.gov.au](http://www.energyrating.gov.au)**

or

**For more information, refer to:  
[www.energyrating.gov.au](http://www.energyrating.gov.au)**

Our major quantitative research study in 2005 indicated that only around 3% of consumers have ever referred to the website, and very few are aware that it appears on the label.

*I didn't know that website existed, it wasn't on the other labels you showed us, was it? [yc]*

*There's nothing on the label to measure it on, no measuring stick, that's why I also look up their website, but I've never met anyone else who's even heard of the website, they think I'm mad when I say it's there. [oc]*

Other research suggests that these small print references (brand and model reference, government reference, Australian Standard reference, website reference, etc) all add credibility and substance to the label, but once read and acknowledged (years ago in many cases) are not directly referred to again (or at least not on a regular basis). In order to encourage people to refer to the label, it needs to be clearly and effectively highlighted.

*Who reads the label, I don't? I just look at the number of stars and the electricity it uses.  
[yc]*

Firstly, of the two messages, “compare all models at...” is more limited than “for more information, refer to...”, but far more compelling as a call to action, once people are encouraged to find and read it.

*With fridges it's probably OK because the big shops have lots of models to compare, but with other appliances there is less of a range in the shops, so the website would be useful to check out what's around. [yc]*

Secondly, to encourage people to find and read it, the website reference needs to be far more prominent.



Reactions to the above mock-up which highlights the website reference within a white box were somewhat positive, inasmuch as people thought they would be more likely to see it. However, to others the printing was still far too small to encourage them to read it.

*I saw the white box as soon as you showed it, but from here I still can't read it – you don't walk right up close to an appliance, you take it in from a little distance then open the door, so you'd see the stars and the number but you'd still never read this. The typeface has got to be made at least twice that size. [oc]*

A different approach involved including the website name with, or as, the title of the label, as shown in the following three mock-ups:



Although there were a few supporters for each of these approaches, most people rejected them either because they detracted from the simple title and placement of words of the familiar label, and/or that they were not immediately recognisable as a website name, and/or that by itself the website name did not have a call for action or reason for being there.

*If I was going to use the Internet at all, it would be to look up a manufacturer's website, or Choice magazine, or perhaps Harvey Norman, because I'm looking to buy the appliance, not its energy rating, it's important but it's only one of many factors I'd look at. [oc]*

*Prefacing it with "To compare all models", like in the other label you showed us, makes sense because that's the only reason you'd look it up, but just to give the website name by itself doesn't make any sense to me. [yc].*

### 3.4.4 Options for Adding Energy Star on Eligible Models

For several years, a voluntary Top Energy Saver Award Winner (TESAW) label could be placed on models which met certain high energy efficiency criteria, not unlike the case with the early Galaxy Award label. However, there was only limited industry use of the voluntary TESAW label and it has been phased out and may be replaced in the future by the voluntary Energy Star label, using somewhat different criteria to establish a model's eligibility. This development requires comprehensive research of its own. To set the scene, the idea was examined briefly in the current study.



The Energy Star Program commenced in the US in 1992. It applies to a vast array of products in that country, including equipment, appliances, materials and even buildings. Australia became an Energy Star partner and adopted the program nationally in 1999 for office equipment and in 2001 for consumer electronics. New Zealand is also an Energy Star partner for the same product ranges.

Energy Star criteria are used internationally for selected equipment types (mainly commodities such as office equipment and home entertainment equipment). However a large part of the US Energy Star program is set up as a domestic endorsement labelling system that works in conjunction with other domestic programs such as MEPS and energy labelling or as a stand alone program for selected unregulated products.

In 2005 detailed discussions and negotiations were held with the US Environmental Protection Agency and the US Department of Energy. These resulted in an in-principle agreement that Australia and New Zealand could set local Energy Star criteria for products that were sold in the Australasian market (such as white goods where the USA had their own domestic Energy Star criteria), subject to detailed review by EPA and DOE on a product-by-product basis. On this basis, E3 decided to move towards the use of the Energy Star label as the primary endorsement label for appliances and equipment in Australia, replacing the TESAW label.

Our major 2005 quantitative study revealed that at that time only some one-third of the population claimed to be aware of the Energy Star label unaided, and only around four in ten recalled it when prompted. Whereas over half of these people had something positive to say about the Energy Star label, a higher two-thirds of people (also) have something negative to say about it. It's main perceived positives were the blue colour (around one-quarter), and the notion that it was eye-catching (around one in ten) – on the other hand others say that it lacks colour (around one in eight). By far the major negative comment expressed about the Energy Star label (by around one-third of those mentioning negatives) is the perception that it does not communicate anything. Indeed, when asked what it represented, somewhat less than half of those aware of it at all suggested that it indicated something to do with standby power and most of the rest were unsure.

Two years later, in the current study, although it was slightly better known and possibly understood in the New Zealand groups than in the Australian groups, the Energy Star label still emerges with little knowledge or understanding, beyond perhaps once being seen on a computer screen or an office machine. A separate detailed study is needed to establish how best to develop and communicate the possible expanded use of the Energy Star label in Australasia to identify higher energy efficiency models, but for the moment our current research suggests that doing so promises to be a major task indeed. The following comments provide some preliminary idea of the nature of the task.

Relates to standby power:

*I didn't know fridges had stand-by power, they are either on or they're not, aren't they? [r]*

*I still think it would be silly to put that label on a fridge to show that it's more efficient than others, because your fridge is always turned on, it doesn't use standby power as far as I know. [oc]*

*It's got something to do with standby power, hasn't it? I think it's to remind you that your computer or video or whatever uses less power on standby than if you leave it turned on all the time. [oc]*

*I think I've seen that label or something like it on my computer screen. It used to be on there when I turned it on, but since I had it repaired, it no longer appears, and the computer goes much faster. [oc]*

*That label used to be on computers and old video machines but I haven't seen it for a long time. [yc]*

Adds no further information:

*What can it possibly tell you that the star rating label hasn't already told you far more clearly. [r]*

*I don't like the look of that (Energy Star label), it looks real childish next to the energy label, and it says absolutely nothing at all. [yc]*

*I've seen it before, but I've never thought about it – the one with the stars around the top is the proper star rating label. [oc]*

*Nobody knows what that's for, it's just a meaningless squiggle. [r]*

*Oh dear that's real 1970s graphic design, please don't bring that back. No, I don't know what it means, and I don't want to. [yc]*

*They haven't even explained properly what it's for on a computer, now you're saying it's going to be used on refrigerators as well, why, what's the point? [r]*

*Yes, I never knew what it meant, was it something about saving the environment? [yc]*