

HUD CNA eTool

Addressing EUL, ARUL, & TCO

Presenter: All right. So welcome everybody to the last of a fairly lengthy series of virtual classroom sessions on HUD e-CNA tool. This is the final session of four that we are providing on EUL, ARUL, and TCO. But let me jump into a couple of technical issues and housekeeping issues before we get started.

Many of you may have already attended some of these virtual classroom sessions on other topics, which I'll enumerate in a moment. But for purposes of this session, I've all got you muted on entry. You can see in the participant window on the upper right-hand corner of your screen that there is a red microphone with a slash through it to the right of your name.

You can always unmute yourself, and I encourage you to do so at any time that you want to participate or ask a question. The other couple of technical tools that I'll lay out for you are that there's a chat window on the upper right-hand corner and I will be paying attention to the chat window as a I go in case anybody wants to send me a note.

Be aware, however, and have sympathy, I'm solo presenting, hosting, and managing the technology for the presentation. So sometimes, I'm focused on the presentation and not watching the chat window. With that, let's just begin. This is the final of four sessions or classroom sessions on addressing EUL, RUL, ARUL, and TCO.

This is one of a series of four different classes that HUD has developed in response to the first batch of CNAs. The other ones, which many of you have probably attended and which are now concluded in their schedule are narratives and comments, flag notes, and attachments and photos. So those four classes comprise the body of this effort that HUD has undertaken to provide feedback to CNA submitters to HUD.

So as I said before, there are going to be two portions to this classroom. The first section of this is recorded. You're all muted. You can use the chat box, there is no Q&A box, I believe, to interact with me or to send comments about the presentation. This is essentially a lessons learned session, which I'll talk about a little bit more in a moment, and we'll take some initial questions.

And then, once we've gone through that portion of the session, I'll turn the recording off and we can have a little bit more of a dynamic and interactive discussion if you'd like on the subject matter. As I said before, you've got a chat box on the upper right-hand corner. I assume you can all see that. And you've got your microphone controls as well as whatever muting you've got in effect on your own phones.

So with that brief introduction, let's jump into what the learning objectives here are. We're going to focus on RUL, ARUL, and TCO. That's remaining useful life, assessed remaining useful life, and total cost of operations, and of course, EUL, which is effective useful life.

The idea underlying all of these sessions is that HUD has now received a batch of CNAs pursuant to its requirement that they be e-CNAs. And they have identified four key areas where they think some feedback loop to their partners in the CNA world and the lending world will improve the likelihood of HUD being able to efficiently and effectively approve the submissions.

And those areas that they identified correspond to the classes that we've designed and held over the last month, which are narratives and comments, flag notes, attachments, and photos, and this session on RUL, ARUL, and so forth. I'm also going to just very briefly talk about where you can access some additional tools and resources and then, ultimately, we'll have an opportunity to discuss all of what we've learned. So let's jump into it.

As I said before, HUD has experienced a particular volume with its new requirement that these be submitted and that that volume of submissions has, for the first time, given it some real-world intelligence on how it's going and what it thinks might be improved for everybody's benefit.

So as you can see from the bar chart on the screen, through the end of March, HUD had received -- sorry, not 125 -- 125 in March; 367 total. I expect that over the course of this week, there'll be a new chart and it'll show yet a greater number of submissions in April than it experienced in March. But fundamentally, what you can see is that HUD is ramping up rapidly and itself is in a learning curve about how to review and approve your submissions.

Next chart is also quite interesting because it shows as of the end of March or the beginning of April how that total volume of 367 had -- was currently at that time breaking down. The two most interesting pieces of information are that a quarter, 24.5 percent, had been approved. That's the 90 in the pink pie slice at the bottom. And that more problematically, the light blue pie slice between, say, 8:00 and 12:00 o'clock on the chart shows that there were 126 of them, or more than a third, 34.5 percent, which had been returned.

And again, that's the whole spirit of these sessions, is to provide some feedback from HUD about the things that folks might do to improve the likelihood of getting an approval rather than a return of submission. So with that, let's just talk very briefly about HUD's set of resources for you. Many of you are familiar with this, so forgive me if I belabor the obvious.

But this is the go-to page for HUD. The URL is on the screen and just about everything you need to know about where HUD is with respect to the CNA e-tool can be found on this page. And I'm going to talk over the next couple of slides about a couple of key areas of the page itself, key tools and resources that you should know about and be able to reference.

One is, importantly, the AAQ resource, or ask a question resource, and there's a link for this on the HUD e-CNA page. The AAQ is where you can send HUD a question about something that you're experiencing or a problem that you're having with the assessor tool or with the validation portal or with the requirements of the e-CNA at large.

And HUD is finding that this is an extremely useful feedback loop for them in terms of what's working or not working, what needs to be fixed, and how the industry itself is experiencing the e-CNA requirements. So I just want to take a very brief moment to encourage you to use this

when you're having an issue and if, in particular, you can't find the answer elsewhere. So let's talk about what elsewhere is.

Obviously, the assessor tool itself has been updated pretty frequently since it was released, but these are only incremental improvements. We are -- as of April 4th, we're up to assessor tool v1.2A, version 6. Obviously, in March, it was version 5, and so on, and so forth going back.

HUD does not expect or require that every submission be the most current version as soon as the most current version is released. What they're asking for instead is that when new CNAs are begun, that the most recent assessor tool is used for those. They don't have any expectation that you'll go back retrospectively and update in-process CNAs to the most recent version of the assessor tool.

When these assessor tools are released, there's a changes document that you can access on the HUD e-CNA webpage and also, a corresponding operational bulletin. One of the most important resources, aside from the operational guide itself, is known as the KIS document, the HUD e-CNA known issues and solutions document.

And this is essentially a running document in which HUD records how to perform workarounds for various issues that have been identified now that the tool is in actual use rather than in sort of conceptual development. And I say it's a running document. What they'll do is they'll strike through fixes that are no longer necessary based on the most current version of the e-tool. So it's a good place to go just to see what the current state of affairs is with respect to how to work with the e-tool itself.

Couple of other items. There's the RfR financial factors tool, which can be downloaded. Just by way of reminder, that itself is not required to be used when you submit. It's not required to be attached, I should say. And then, of course, there is a presentation for using the CNA e-tool or RAD transactions, which is also available and I just wanted to point you to that in the event that you're doing a RAD deal.

So let's - now that we're 12 minutes in, let's jump into lessons learned and the feedback that HUD has for you about RUL, ARUL, and TCO, and how it functions and how you might use it better. So some important key concepts. The EUL that is -- forgive me. I'm going to go through a couple of slides initially that are sort of text-heavy, but then, I'm going to have some that are -- have some graphics from the actual assessor tool. So hold your breath for a moment.

But the -- in the assessor tool and the e-CNA, systematically, the EUL, or the effective useful life, is automatically populated based on the component type. And you'll find the tables that reference these standard effective useful lives in the instructions to the CNA e-tool in Appendix C. You'll also note that there are differences, occasionally, for family versus elderly for some building systems.

And the remaining useful life that populates in the assessor tool is the EUL minus the current age, and the current age is the years between the site visit and the date that that particular item itself was installed.

So once you understand those general principles, and, again, as I said, we'll see it in a moment on some sample screens, you begin to understand a very key element of RUL and EUL, which is the systematic auto population of remaining useful life based on how long that item has been installed and what the standard tables dictate the effective useful life of that item should be.

Now, of course, you say, well, what's the point of a site visit if you could just all do it on data? And that's where assessed remaining useful life comes in handy, and we'll get to that. So you're obviously able in performing an assessment or a CNA assessor tool completion to depart from the standard remaining useful life by determining a different remaining useful life, and we call that the assessed remaining useful life, or ARUL.

And what HUD is expecting from its partners in their submissions of CNAs is that for an average item, you would default to the standard remaining useful life. That is, the calculated remaining useful life based on the component's age and the data of the inspection and the EUL tables.

And to default to the standard, you simply leave the ARUL blank. However, there are many situations in which an item might be better or worse for its age than standard and HUD has built into the system the ability to override the standard remaining useful life with a different assessed remaining useful life.

However, when you do this, you need to provide a comment and HUD is expecting a comment. In some cases, flags are driven by the fact that there might not be a comment and HUD wants to know why an item is better or worse for its age than a -- than the default provided by the system.

So remaining useful life and assessed remaining useful life, let's talk about some samples. Obviously, RUL is a rule of thumb. It's only that and just because it says refrigerators should last for 15 years doesn't mean that they're always going to last for 15 years. So context matters. And depending on whether they're in better or worse quality for their age, one might determine a longer or shorter remaining useful life or assessed remaining useful life than the standard provided remaining useful life.

So what are some reasons you might have on a site visit a difference of opinion about the remaining useful life that the system is generating? Well, we've listed a few of them here. There might be others, but these are sort of top of mind and obvious ones. The environment might have something to do with it.

So a property that is ocean-side is obviously going to be subject to different weather. Air conditioning might last longer in Vermont than it might in Florida. So there's a lot of reasons why environmental conditions might play into determination of a shorter or longer ARUL than RUL.

It could be that the materials themselves are of better or worse than standard quality. It could be that the installation was particularly well or particularly poorly done. It could be that the property has a history of great maintenance services or very poor maintenance services. It could be that there's been wear and tear by residents based on higher or lower turnover, larger or smaller units, et cetera.

So you might imagine, for instance, that all else equal, a refrigerator in a four-bedroom apartment is probably going to have a shorter life than that same refrigerator in a one-bedroom apartment. So these are some factors that HUD is expecting feedback on in comments when the ARUL differs from the RUL in a submission.

This is important to think about, the fact that the system auto generates flag notes around the issue of RUL and ARUL. You'll note the ones on the screen, some of them are W flags and some are S flags. Obviously, if you're validating prior to submission an assessor tool and you determine that there are a number of S flags, you, at this point, are aware you're required to go back in and fix those issues and then revalidate until you can validate without S flag.

However, W flags require a flag note comment from the lender or assessor. And between the two, HUD can be satisfied in its review that everything's been addressed. Note, obviously, that you kind of have two problems here. One is, for instance, look at DV-041, S, or severe, flags, standard estimated useful life field left blank on a component. And on other ones, the comments field is only required when an assessed RUL exists.

So you could fix the S flag by leaving a comment in there. However, just because you've fixed the flag by inserting a comment doesn't mean that the inserted comment itself will satisfy HUD in its review. So it's kind of a two-prong test.

Here's an example from an extracted set of flag notes that HUD thought was pretty good and wanted to put in front of you as an example of something that works in a submission. So if you look at the first line, you get a flag ID of UL-001 and it says, under the flag description, recommended remaining useful life differs from the standard remaining useful life on an alternative component type, is aluminum, and the alternative is vinyl-clad wood double-hung one over one double-insulated solar shield.

And what HUD found acceptable here was the flag note that said high performance windows, vinyl-clad, would substantially exceed the EUL of existing component type, aluminum-frame windows, 50 versus 35 years. So this is a case where they felt it's convincing, it's different than the material in the existing component ID, and therefore, departing from the RUL that the system is generating can be defended.

Let's just jump ahead to the last one. In this particular case, we again have a situation in which you can read in the assessor's draft flag note at the bottom that the item is being replaced with a higher performance alternative, in this case longer effective useful life. And the area here is its sliding glass doors are being replaced with swinging doors.

And you'll note in addition that the particular submission in question went a step further and just in case HUD wasn't quite on board with that. They've attached product spec and warranty information and they've indicated what the name of that attachment is. So this is fairly thorough and all ties together fairly well.

All right. So now that we've covered a few basic concepts about RUL and EUL and ARUL, let's talk about what total cost of ownership, or TCO, really is. TCO is calculated for every component ID and every alternative, and it's effectively the unit cost divided by the standard

EUL, which is essentially the amortized cost of that item over its lifetime, plus the utility usage times the utility cost per year, and I'll explain this in a little bit more detail to make it more clear to you in a moment.

The system goes one step further and essentially shows that the alternative that has the best or the lowest total cost of ownership per year is going to display with a plus sign in the alternative mains list, and you'll see this as I get to that slide.

Inputting utility information and the impact that it has on TCO is only required under two sets of circumstances. One is that you are applying for a green MIP or that, secondly, you're requiring or requesting that HUD's underwriting of utility cost savings be included in the mortgage that you're seeking.

So if one of those two are true, then you're going to need to input the utility cost data, and if either of those are true, you [do not ?] need to do that and, of course, that will have an impact on the TCO calculation. Here's a neat little cheat sheet that shows you that if you are not applying for a green MIP or utility savings are not being included in the underwriting, then, really, the correct entry across categories, just simply leave it blank. Hopefully, that's helpful, to understand that.

So for TCO and utilities for the existing component ID and any alternatives, you're going to need to enter the utility and the usage per year. And I'm going to sort of skip this and jump to the actual example. It looks like this in the utility type usage panel of the assessor tool data entry interface. In this particular case, you can see that the person who's entering it is selecting tenant electricity, and I'm going to get a little -- couple of tools here so I can get some visual support as I go.

They're selecting tenant electricity. That auto populates these two. And then, they're essentially saying that the measure of consumption units is kilowatt hours and the utility rate is 11 cents. And just hold that because -- or hold that thought because you'll see this comes up a little bit later as we begin to get into TCO.

So in this case, we have an existing component ID of unit refrigerators. They have a unit cost of \$1,000. And the standard EUL for refrigerators is 12 years. That's coming off of the table that's essentially a data set in the tool itself. It's not an input that you would have made. The current age is seven. That's coming off the earlier input of the data that it was installed and the date of the inspection, which generates a standard remaining useful life of five years. Obviously, 12 minus 7 is 5.

And in this particular case, nobody is differing with that. They're not saying that they're going to last any longer or shorter, but -- than five years, but if somebody did and they said the assessed remaining useful life is four or two or ten, then a comment would be needed here.

As for TCO, the TCO is 1,000 divided by 12 plus 1,800 kilowatt hours times the \$0.11 per kilowatt hour price, which yields a total cost of ownership of that for the amortized cost of the purchase of the item over its standard estimated useful life plus the cost of utilities at the usage and rate that have been input of \$281.33 per year per appliance.

Moving forward, we get into alternatives, and in this case, the alternative that's being set up is an Energy Star refrigerator. It has a unit cost of 1,200 and an EUL of 12 years, or \$100 a unit a year, but its usage, instead of being 1,800 kilowatt hours, because it's Energy Star, its usage is 1,400. And so, the calculated total cost of ownership is \$254, which is, if you'll recall, a little bit less than the non-Energy Star existing component IDs.

So just as you will have to set up a component ID and an alternative, there'll need to be a recommendation. In this case, the recommendation is to replace unit refrigerators with Energy Star refrigerators at the end of cycle. TCO per year is \$254, which is a savings of \$27.33 per refrigerator per year over the existing component ID. And because this is the most energy efficient alternative, it shows this with a plus sign.

HUD wants you to understand, of course, that the TCO calculation is a little bare-bones at the moment. It doesn't allow for more complicated cost of ownership calculations that would result if a particular item were impacting more than one utility type. So HUD simply says use the dominant utility type in these cases and future improvements of the e-tool may allow for some more nuanced and elaborate calculations in that regard.

So on schedule. I've run through the things that HUD wanted to talk about with respect to RUL, EUL, ARUL, and TCO. I've given you some flag note illustrations. I've walked through the input panels and where those items show up. And I want to open it up to any immediate questions based on the material that we've covered before we shut off the recording, and if there's any kind of dynamic discussion or information sharing that you guys want to participate in on this topic at this time.

So are there any questions or anything that I didn't cover with sufficient clarity in the preceding 26 slides? All right. I can wait a second and see if there's anything you want to send. There's also the opportunity to send -- rather than unmuting yourself and participating over the phone, you can also send me a chat. I'm paying attention to the chat window as we speak and I can handle with some mask of anonymity for your benefit, if you like. Great. So I'm going to shut off the recording if there's nothing on those at the moment.