

Measurement and Verification Method Compliance Requirements

Project-Based Activities

11 February 2021



An appropriate citation for this paper is:

Essential Services Commission 2019, Measurement and Verification Method Compliance Requirements: Project-Based Activities, 12 September

Copyright notice

© Essential Services Commission 2019



This work, Measurement and Verification Method Compliance Requirements, is licensed under a Creative Commons Attribution 4.0 licence [creativecommons.org/licenses/by/4.0]. You are free to re-use the work under that licence, on the condition that you credit the Essential Services Commission as author, indicate if changes were made and comply with the other licence terms.

The licence does not apply to any brand logo, images or photographs within the publication.

Contents

1. Introduction	1
1.1. About the VEU program	1
1.2. About project-based activities	1
1.3. Purpose of this document	1
1.4. How this document is structured	1
1.5. Record keeping	2
1.6. Legal context for this document	2
2. Compliance checklists	4
2.1. Scoping Plan Approval Form	4
2.2. Project Plan Approval Form	10
2.3. Variations to scoping or project plans	14
2.4. Impact Report Approval Form	14

1. Introduction

1.1. About the VEU program

Under the Victorian Energy Efficiency Target (VEET) Act 2007 (the VEET Act), the Essential Services Commission is responsible for monitoring compliance with the VEET Act, the Victorian Energy Efficiency Target Regulations 2018 (the principal VEET Regulations), the Victorian Energy Efficiency Target (Project-Based Activities) Regulations 2017 (the PBA Regulations), Measurement and Verification in Victorian Energy Upgrades (VEU)– Specifications (M&V specifications).

Accredited persons (APs) must adhere to the requirements as outlined in the VEET Act, the principal VEET Regulations and the PBA Regulations, the Victorian Energy Efficiency Target Guidelines (the VEET Guidelines), M&V specifications, and any guides issued by the commission.

1.2. About project-based activities

Project-based activities (PBA) allow APs to create Victorian energy efficiency certificates (VEECs) for energy efficiency projects in business and non-residential premises, and on common services in Class 2 or Class 3 residential buildings under part A3 of the Building Code of Australia (BCA).

Measurement and verification (M&V) was the first method introduced under PBA.

1.3. Purpose of this document

This document is designed to guide you as the AP, and other interested stakeholders through the compliance requirements for measurement and verification (M&V) projects by outlining the evidence that you are required to collect and maintain for each project. It also contains compliance checklists for each stage of the project.

Those needing further guidance on key concepts and issues, stages, processes and resources for PBA M&Vs are directed to the Measurement and Verification Method Activity Guide, available at www.esc.vic.gov.au/m-and-v.

1.4. How this document is structured

This document outlines the evidence that you are required to collect for each M&V project. You should familiarise yourself with the documents that must be collected and provided to us upon request to verify that M&V projects have been carried out in accordance with program compliance

requirements. Monitoring compliance in consultation with the following checklists will help ensure that each project meets the requirements of the VEU program.

You will need a firm grasp of these key concepts and issues, as they are referred to in the compliance checklists.

Section 2 of this document outlines the compliance checklists for the steps in the M&V project process.

It is important that you familiarise yourself with the evidence that is required to be collected for each step. Similarly, it is essential that you pay close attention to the document collection requirements for each section outlined in the compliance checklists (i.e. mandatory or optional documents).

1.5. Record keeping

APs must ensure that appropriate records are kept to verify all details of the project which relate to the calculation of greenhouse gas abatement and the creation of certificates.

The commission may request additional supporting evidence to confirm details relevant to the calculation of abatement, the proper creation of certificates as well as subsequent validation and registration of claims.

Additional supporting evidence may include, but is not limited to:

- calibration records for sub meters or portable meters used to measure energy consumption
- other raw data files
- organisational processes that demonstrate the AM&VP is independent of the project (for a basic verification report).

APs must ensure that the maintained documentation constitutes an auditable record of the work undertaken. Documents must be stored for six years after the date that the final certificate for the project has been registered.

If the standard of documentation maintained fails to provide auditable records of the work undertaken, the AP may be required to surrender certificates equal to those that cannot be verified.

1.6. Legal context for this document

The commission has prepared this compliance requirements guide as a general summary of the relevant parts of the:

- Victorian Energy Efficiency Target Act 2007

- Victorian Energy Efficiency Target Regulations 2018
- Victorian Energy Efficiency Target (Project-Based Activities) Regulations 2017
- Measurement and Verification in Victorian Energy Upgrades – Specifications
- Victorian Energy Efficiency Target Guidelines.

Access the above legislative documents at www.esc.vic.gov.au/veu-legislation.

This document should not be relied upon as substitute for legal advice and should be read in conjunction with the above source documents. In the event of inconsistency between this guide and the source documents, the content in the source documents takes precedence.

2. Compliance checklists

2.1. Scoping Plan Approval Form

To apply for scoping plan approval, the AP (you) must:

- complete the relevant Scoping Plan Approval Form and any other required forms (these can be found at www.esc.vic.gov.au/m-and-v)
- provide the evidentiary requirements outlined in the following compliance checklist. These must be submitted to us for the scoping plan stage of an M&V project.

2.1.1. Applicant details

You must provide your details (the AP's details).

Question	Description
1-7 ¹	You must fill in details such as account name, name of AP, address of AP, who the primary contact is and their contact details.
8	Explain what the normal site activities are – that is: what normally happens at the project site(s) where consumption of electricity or gas is being reduced.

2.1.2. Legal right

You must identify the energy consumer and provide details of your right to apply for and carry out this project.

Question	Description
9	<p>You must provide evidence showing who the energy consumer at the site is. This should specifically relate to the electricity or gas being abated through the project.</p> <p>If this is a multi-site project you will need to provide an energy retailer document for each site. The energy consumer must match the client listed in the VEU portal against that address.</p>
10	Indicate whether the AP is also the energy consumer (e.g. if you are doing a project at your own site). In most cases this question will require a Registration of Interest Form which has been signed by you and the energy consumer.

¹ The question numbers indicated in this explanatory note reflect those of the individual scoping and project plan application forms. When using the combined scoping and project plan application form, question numbers may differ from those indicated. Please consult the relevant application form along with this explanatory note.

Question	Description
	For multi-site projects a Registration of Interest Form must be completed for each individual energy consumer.
11	<p>If the energy consumer is not the site owner you will need to provide a site ownership structure showing the relationship between the site owner, energy consumer and any other entity involved in each site.</p> <p>Please refer to the Measurement and Verification Activity Guide for details of what to do when there are multiple energy consumers or where the site owner is not the energy consumer.</p>

2.1.3. Project details

You must provide details of the proposed project.

Question	Description
12	<p>Provide a unique name which identifies the project. The project name must be suitable and not misleading about the project's ownership, scope or purpose.</p> <p>Use the format: [organisation name]_[site]_[location]_[purpose]_[start date]</p> <p>For example: PackagingCompany_Moorabbin_Boiler Upgrade_Dec 2017.</p> <p>You do not need to explicitly state details such as the company name if you or the energy consumer are concerned about having certain details publicly listed.</p>
13	For multi-site projects explain the similarity of premises and upgrade, including the service(s) and energy sources affected. These must be consistent across all premises.
14	Indicate whether the project is being undertaken at a site which is classed as business or non-residential.
15	If the site is classed as residential (e.g. a backpacker hostel, apartment building or hotel or any other building which comes under Class 2 or 3 in the Building Code), confirm whether the project relates to any services exclusively supplied to a sole-occupancy dwelling. For example, an apartment building can have a PBA project for equipment relating to common services (for example central HVAC), but cannot contain any element of energy consuming equipment in individual dwellings.
16	Confirm that the project abatement does not derive from the construction of a new building.
17	<p>Indicate whether the site's address appears on the Register of SAP found at www.veu-registry.vic.gov.au/register-saps</p> <p>If the site is a SAP, then an authorised person at the site must 'opt-in' before the</p>

Question	Description
	application can be considered. This should be done well in advance of submitting the Scoping Plan Approval Form (see Large Energy Users' Scheduled Activity Premises Guide for further information on 'opt-in' requirements).
18	Enter the date that project works are due to commence (at scoping plan stage, this can be an indicative date). For multi-site projects with different commencement dates for different sites, this is the earliest commencement date.
19-25	Describe the activities that will be undertaken as part of the project including details of: <ul style="list-style-type: none"> any equipment to be installed, modified or removed as part of the project the services that will be affected other activities that might affect energy consumption at the site how the project will result in genuine abatement.
26	Explain how the project will reduce greenhouse gas emissions from electricity or gas consumption. This may include a list of the equipment to be upgraded or may indicate how a change in fuel type, process or operation might reduce greenhouse gas emissions.
27	List any planning or development approvals from government and regulatory bodies.
28	Any lighting equipment installed as part of the project must be listed on the Register of Products found at www.veu-registry.vic.gov.au/register-products prior to the next application for project impact report being submitted. You must also provide details of: <ul style="list-style-type: none"> any lighting control devices (e.g. occupancy sensors, daylight linked controls, etc.) that these products use a list of zones and lights being installed/replaced (including wattages and any sensors). <p>If the lighting products you plan on using are not relevant to the requirements of Activity 21, 27, 34 or 35 installation environments and are highly specialised for the specific project purpose, contact us early in the process to confirm whether the product(s) is eligible. They may be able to be added to the register under a specialised category.</p>
29	Provide a site layout diagram that clearly shows the project locations and boundaries for all project activities within the site. These can be simple hand drawn explanations of the project. Detailed engineering drawings are not required at the scoping plan stage.
30	Give an explanation of any work which has already been carried out, including: <ul style="list-style-type: none"> project planning and design

Question	Description
	<ul style="list-style-type: none"> • scoping • meter installation • asset installation • asset modification • project construction work. <p>Provide as much detail as possible. We may request further information on this or arrange to visit the site if this information is unclear.</p>

2.1.4. Energy

You must provide details on the sources of energy supply at the site.

Question	Description
31	List all site energy sources that will be affected. Select from the list and give details of any other energy sources affected using the text box.
32	<p>Provide details on the types of documents and other information that will be needed in order to establish pre-project energy use, and how that information will be obtained.</p> <p>Include what measurements will be taken, when, and over what measurement periods as well as what won't be measured (if applicable).</p> <p>This is an opportunity for us assess how you intend to gather this critical information. It demonstrates that you have considered what information is needed and provides confidence that this is achievable. It is a reminder to you that M&V planning is a critical stage of the process and should be considered at the beginning of the project rather than waiting until the end. Projects that do not consider M&V at the beginning of the project can fail to generate reliable data and could therefore be unable to create VEECs.</p> <p>If you plan to start project works before we approve the project plan, it is extremely important that this statement is as descriptive as possible. The 100-word limit is a suggested limit and as many words as is needed can be used. Alternatively, this area can be used to describe a separate file that has been attached to the application. This file can be even more descriptive and could include diagrams or similar.</p>
33	<p>Confirm whether the project involves fuel switching to non-renewable fuels including fossil fuels, waste from fossil fuel sources, or wood from native forests (other than wood waste from a native forest which is a waste product from the construction of buildings or furniture, including timber off-cuts and timber from demolished buildings).</p> <p>You must provide details of each energy source relevant to the project, including:</p> <ul style="list-style-type: none"> • the type of renewable energy source, • average energy content of the new fuel, and • difference in emissions factors between the original and the new fuel (refer to the

Question	Description
	National Greenhouse Accounts Factors - August 2016). If other new fuels are introduced, provide information on average energy content of the source and the emission factors.
34	List the site energy sources to be introduced. Select from the list and give details of any other energy sources affected.
35	If the site has an existing solar array, tell us the size in kW and whether the existing electricity supplier agreement includes an export cap. For multi-site projects you must list which addresses have an existing solar array and the size of each. Electricity generated from a solar array has an emissions factor of zero. Therefore, VEECs cannot be created for electricity savings generated using an off-grid solar array, so you will need to demonstrate that any electricity saved is from other sources e.g. grid electricity.

2.1.5. Greenhouse gas emissions

You must provide details on the greenhouse gas emissions at the site.

Question	Description
36	Identify the method of VEEC calculation (e.g. forward creation or annual creation). Although doing so at this stage may seem quite early, and it may not yet have been decided on, it is particularly important for us to assess at this early point, as we will not allow some projects to create certificates in a certain way. For example, projects that have the potential to be changed easily, such as set point or behaviour changes, will not be allowed to forward create. It is therefore crucial for some project proponents to know whether they will be allowed to create certificates in this manner, as not being able to forward create may mean that the project becomes not economically viable. This information can be changed later by applying for a variation at any time up until the first impact report is approved. If this answer is not known at this stage, it may be appropriate to select forward creation to see if this is possible or if another method is required.
37	Explain participation in any other prescribed scheme (where relevant). To avoid double-counting abatement, any participation in other prescribed schemes must be fully explained, including a description of how it is intended to separate out any abatement relative to the differing schemes. This requires introducing additional metering specifically.

2.1.6. Application format

Provide details of any templates you have used instead of the Scoping Plan Approval Form.

Question	Description
38	<p>Selecting 'Yes' in answer to this question means that only questions, declarations and signatures from this point onwards need to be provided.</p> <p>You must have had your template approved by us prior to selecting 'Yes'. Please contact us via VEU Support at veu@esc.vic.gov.au to discuss your proposed template.</p> <p>Please include a unique project name, as per the instructions for Q12.</p>

2.1.7. Insurance

You must maintain appropriate levels of insurance.

Question	Description
39	<p>If the project is to be carried out at your own site, you must provide a signed insurance waiver document. Otherwise you must declare that your insurance level is appropriate for participation in this project.</p> <p>If you provided all the requested insurance details as part of your accreditation or activity application approval and it is in date and valid, you do not need to provide this again.</p> <p>If you did not provide some of this information with your accreditation or activity application, you will be prompted to provide it with your first Scoping Plan Approval Form.</p>

2.1.8. Applicant's undertakings in relation to scoping plan approval

You must complete the undertakings detailed in this section of the Scoping Plan Approval Form.

Question	Description
40-42	<p>All undertakings must be completed regardless of the project activities.</p>

2.1.9. Declaration

You must agree with and certify that you have understood and will comply with the declarations listed in the Scoping Plan Approval Form.

Question	Description
43	<p>All declarations must be read, understood and complied with. Your signature and that of an appropriate witness must certify these statements.</p>

2.2. Project Plan Approval Form

To apply for project plan approval, the AP (you) must complete the Project Plan Approval Form and any other required forms (these can be found at www.esc.vic.gov.au/m-and-v) as well as providing the evidentiary requirements outlined in the following compliance checklist. These must be submitted to us for the project plan stage of an M&V project.

2.2.1. Project details

You must provide details relating to the project site.

Question	Description
1	AP account name.
2	Give the project name that this application refers to. This must be an exact match for the project name given in the corresponding scoping plan application for the same project.
3	Indicate if there have been any changes since the corresponding scoping plan application for the same project was approved (where relevant). If changes have been made an application for variation may need to be made using the Variation approval form.
4	Attach a clear site layout diagram showing the site boundaries and location of project activities. Any relevant metering points must be marked up on this document. This should be provided in greater detail than at the scoping plan stage, if applicable. If the project involves lighting, the site diagram(s) should show the location of lighting products being replaced, including any lighting control devices such as sensors. For multi-site projects you must provide a specific diagram for each site.
5	If your project is multi-site, describe the similarity of measurement boundaries for each premises.

2.2.2. Project timing

You must provide details of all planned timeframes for the project activities. This differs from any timeframe given in the scoping plan, where the scoping plan timeframes were indicative, the timeframes in the project plan should be the actual dates activities are planned. Any change to these dates will require a variation

Question	Description
6	Confirm that all relevant project approvals have been obtained or provide details of any outstanding approvals including the relevant regulatory body and expected time frame.
7	Give the date the baseline period is planned to begin.

Question	Description
8	Give the date the baseline period is planned to end.
9	(Optional question). If the project is using a method involving forward creation, give the date that the operating period will start.
10	(Optional question). If the project is using a method involving forward creation, give the date that the operating period will end. Note: you can attach a document showing different measurement dates for multi-site projects (if applicable).
11	(Optional question). If the project works are carried out in stages, this is the date that the last activity is complete, if different to the project works end date.
12	Indicate if the project will involve installing or removing lighting equipment. If so, this equipment must be listed on the Register of Products found at www.veu-registry.vic.gov.au/register-products before the next impact report can be approved. The brand and model entered in this list must match the exact terms used on the Register of Products. Note that if there are multiple products, list all of these in the brand/model fields or, in the case where the form does not provide enough space, attach a separate list with these details. Attach a breakdown and details of what lighting products are being removed and what products they are being replaced with, including all wattages and any lighting control devices. Also include an explanation of zoning, which explains the different areas where lights are being replaced.

2.2.3. Project abatement

APs must give details relating to the project abatement.

Question	Description
13	Give an estimate of the greenhouse gas abatement likely to result from this project. For projects which include non-VEU elements, this estimate should relate to only the VEU related project activities.
14	Provide details on how the greenhouse gas abatement estimate in question 13. This can be a collection of calculations and explanations but must include a breakdown of each portion of the project, along with a basis for all assumptions and an explanation of how each energy saving estimate was achieved. Where more space is needed, please attach a separate worksheet and write the filename of this in the text box. Provide a description of any behaviour change components and their proportion of the total savings.

2.2.4. Project team details

You must give details relating to the roles of the project team used in the planning and implementation of the project.

If you have already provided details of your organisation and project team as part of the accreditation/activity approval application, you must still provide this again as part of the project plan application. This is a different requirement from that in the accreditation/activity approval application form. The accreditation question asks about the management of projects as a whole and is aimed at the management structure (and team) involved in managing multiple projects. These questions in the Project Plan Approval Form ask only about the specific structure and team for this particular project.

Question	Description
15	The organisation chart should show: <ul style="list-style-type: none">• the names of all project leadership team roles including expert advisors• the responsibilities, accountability and authority levels for each role• relevant skills, qualifications and experience required for each role• identify any personnel/roles based outside Victoria.
16-17	Confirm whether you are confident that the entire project team is capable of delivering this project. If you are not confident, list other specialist knowledge and skills which are required to deliver this project.
18	Indicate if a qualified CMVP and/or an AM&VP was engaged to assist with putting together the M&V plan. If yes, then tell us who it was.
19	Indicate if you have appointed an AM&VP to provide the verification report. If yes, then tell us who it is.
20-21	If an expert was used or is planned to be used, please indicate and provide details if they are carrying out any other roles in this project.
22	Following on from the questions 20-21, list their responsibilities and functions in the project.
23	Following on from questions 20-21, provide details of their professional indemnity insurance.
24-26	If an agent was engaged to represent the site owner, energy consumer or you, please indicate and provide details on their responsibilities and functions in this project and their experience in previous projects.

2.2.5. Measurement and verification (M&V) plan

You must explain how your project will save energy, and how you will measure and verify this.

Question	Description
27	The M&V plan must meet the requirements of the International Performance Measurement and Verification Protocol (IPMVP) 2014 ² published by the Efficiency Valuation Organization and contain all the items listed in the Project Plan Approval Form.

2.2.6. Application format

You must provide details on any templates you have used instead of the Project Plan Approval Form.

Question	Description
28	Selecting 'Yes' in answer to this question means that only questions, declarations and signatures from this point onwards need to be provided. You must have had your template approved by us prior to selecting 'Yes'. Please contact us via veu@esc.vic.gov.au to discuss your proposed template. Please include a unique project name, like that in question 2.

2.2.7. Geo-tagged photographic evidence

You must provide geo-tagged photos of all incumbent equipment related to the upgrade at project plan stage.

Question	Description
29	Check the boxes in answer to the questions provided. Attach geo-tagged photographs which are clear and in focus, depicting any relevant markings, including date and time stamps and metadata, and including GPS metadata.

² Efficiency Valuation Organisation, International Performance Measurement and Verification Protocol: Core Concepts, 2014

2.2.8. Declaration

You must agree with and certify that you have understood and will comply with the declarations listed in the Project Plan Approval Form.

Question	Description
30	All declarations must be read, understood and complied with. A signature of the AP and appropriate witness must certify these statements.

2.3. Variations to scoping or project plans

The following compliance checklist outlines the evidentiary requirements the AP (you) must submit for varying the scoping plan or project plan of a project.

2.3.1. Variations to previously approved scoping or project plans

You must seek approval from us to vary to approved scoping and/or project plans. The Variation Approval Form can be found at www.esc.vic.gov.au/m-and-v.

Question	Description
1-16	<p>You must propose variations to the planned project and seek our approval before the variation is implemented.</p> <p>The Measurement and Verification Method Activity Guide details which variations can be considered and which cannot.</p> <p>Any evidentiary documentation supporting this application should be attached (e.g. revised production forecast)</p>

2.4. Impact Report Approval Form

The following compliance checklist outlines the evidentiary requirements the AP (you) must include with each application for impact report approval submitted. To apply for impact report approval, complete the Impact Report Approval Form and any other required forms (these can be found at www.esc.vic.gov.au/m-and-v) as well as providing documentation as outlined in more detail below.

For a comprehensive list of everything the project impact report needs to cover, please refer to the Impact Report Checklist, which can be found at www.esc.vic.gov.au/m-and-v

2.4.1. Evidence of project impact details

You must seek approval of the commission for impact report applications.

Question	Description
1	AP account name.
2	Give the project name that this application refers to. The text must be an exact match for the project name given in the corresponding Scoping Plan Application Form, Project Plan Approval Form and any approved Variation Approval Form for the same project.
3	Indicate which impact report this application relates to (pick from the list in the form).
4	Indicate which site(s) this impact report application relates to (for multi-site projects). If you need more space you can attach a separate document listing the relevant site(s).
5	Tick this box to confirm that no aspect of the project has changed since either the project plan or the latest variation was approved by us.

2.4.2. Lighting product decommissioning

You must provide evidence that where lighting upgrades have occurred as part of the project, any lighting products removed has been decommissioned.

Question	Description
6	<p>Tick these boxes to confirm that any lighting equipment removed has been decommissioned properly and that any newly installed lighting products are listed on the Register of Products (www.veu-registry.vic.gov.au/register-products).</p> <p>All lighting products and control gear removed or bypassed as part of the project must have been appropriately decommissioned. Attach evidence of decommissioning of lighting products and/or control gear (e.g. before and after geo-tagged photographs). Attach recycling declaration. This can be a geo-tagged photograph of decommissioned equipment showing brand and model label, along with a recycling receipt.</p> <p>Any mercury containing lighting product(s) replaced as part of the installation must be disposed of in a class of waste disposal facility as determined by the commission.</p> <p>Any lighting product(s) replaced as part of the installation must not have been installed for the purposes of being decommissioned as part of the project (i.e. the baseline environment must not be altered prior to the installation).</p> <p>Refer to the Building Based Lighting Upgrade Activity Guide found at www.esc.vic.gov.au/veu for further details on decommissioning.</p>

2.4.3. Energy sources

You must identify the energy sources affected by the project.

Question	Description
7	<p>List all the sources of energy which were affected by the project (tick all relevant boxes). Where an energy source is not listed, add it using the text box.</p> <p>Relevant energy sources are the different types of energy that are consumed or generated within the project measurement boundary.</p>

2.4.4. Greenhouse gas emissions

You must respond to the questions about greenhouse gas emissions relating to the project.

Question	Description
8	<p>Answer 'Yes' or 'No' to each question.</p> <p>If the project involved any instance of correcting for over-servicing, give details of why this was necessary in the text box.</p> <p>Project-based activities are not intended to reduce service or production levels unless there is clear evidence of over-servicing. If this is the case, you must provide a detailed statement giving justification for this reduction. Any justification must also have evidence verifying the statement.</p> <p>For example, for lighting projects, this evidence could be a detailed lux-level report prepared by a lighting expert (e.g. a Member or a Fellow of the Illuminating Engineering Society of Australia – MIES or FIES) justifying the change to the over-serviced area in question.</p> <p>Use the text box to indicate the filename of any related documents which have been attached.</p>

2.4.5. Final project cost

You must declare the final project cost.

Question	Description
9	<p>Declare the final project cost relating only to the activities associated with abatement under the VEU program.</p>

2.4.6. Dates

You must give the dates activities actually happened.

Question	Description
10-11	Give the date that the baseline period started and ended.
12	<p>The date that project works begins is important as the commission cannot approve plans where work had already started. Evidence clearly showing this start date must be provided.</p> <p>Provide documentation showing one of the following:</p> <ul style="list-style-type: none"> • the date that equipment was delivered • the date of the earliest final invoice (i.e. the final invoice for the first piece of equipment) • the date that installation/modifications took place as detailed in an installers invoice. <p>A commissioning engineers report may also have this date if it was commissioned on the same day of installation (generally for small projects – so if using a commissioning engineers report we would need to see additional evidence that this was a one-day installation).</p> <p>We must be satisfied that this documentation verifies the commencement of project works. If the start date cannot be verified, alternative documentation must be provided.</p>
13	<p>Enter the date that the project works end and provide evidence of completion. This is also important for annual creation projects as this sets the dates for all subsequent reporting periods.</p> <p>This is the date project works were completed and brought back into service.</p>
14	(Optional question). This refers to the dates that project works start and finish in each measurement boundary in a multi-site project or a project with multiple measurement boundaries. For annual creation projects the project works end dates set the start of the reporting period for each measurement boundary. Evidence must be provided for each project works start and end date.
15	The implementation start time is the date that all project works for all sites and measurement boundaries are complete (including testing and commissioning) and is therefore the project completion date. For a project with only one measurement boundary this is the same as the project works end date. This date sets the start of the maximum time period for forward creation.
16	(Optional question). If the project used a method involving forward creation, give the date that the operating period started.
17	(Optional question). If the project used a method involving forward creation, give the date that the operating period ended.

2.4.7. Project completion

You must attach final engineering drawings showing the as-built project.

Question	Description
18	<p>If relevant, a copy of the final (as-built) engineering drawings must be attached to the impact report application.</p> <p>This is not relevant for behavior change type projects and some process change type projects. Any project that has had equipment installation or modification should have professional engineering drawings done, showing the actual in situ project (note that for some projects, there will be no difference between plan and final drawings, in which case the plan drawings are acceptable).</p>

2.4.8. Geo-tagged photographic evidence

You must provide geo-tagged photos of all the upgraded equipment at impact report stage.

Question	Description
19	<p>Check the boxes in answer to the questions provided.</p> <p>Attach geo-tagged photographs which are clear and in focus, depicting any relevant markings, including date and time stamps and metadata, and including GPS metadata. If you haven't provided the baseline photos include them here.</p>

2.4.9. M&V plan compliance

You must explain how you have complied with the measurement and verification plan which was included in the project plan.

Question	Description
20	<p>Provide a document that explains how you have followed the M&V plan which was approved as part of the project plan. The description must include all the items listed in the Impact Report Approval Form under this question.</p>

2.4.10. Project impact report

You must have at least one approved impact report in order to create VEECs.

For a comprehensive list of everything the project impact report needs to cover, please refer to the Impact Report Checklist, which can be found at www.esc.vic.gov.au/m-and-v

Documentation	Description
Attach a copy of the impact report for the	The impact report describes the processes undertaken in the project and justifies the amount of abatement generated through following industry

Documentation	Description
project.	<p>standard measurement and verification protocols. This is the main output from the M&V process and contains all relevant information relating to the calculation of the abatement generated by the project.</p> <p>Subsequent annual or top-up impact reports (i.e. impact reports that are not year one reports) can have less detail as some detail (such as baseline) will have already been included in the earlier impact report.</p>

2.4.11. M&V method

You must provide details on the IPMVP method and VEEC creation method used for this project.

Question	Description
21	Select which method(s) of VEEC creation the project will be using.
22	Following on from question 20 above, explain why this method(s) was chosen.
23	Indicate the IPMVP method(s) that was chosen for this project.
24	Following on from question 22 above, explain why this method(s) was chosen. If using option C, the justification must consider the percentage of baseline energy that was saved, noting that if this is less than ten percent you may be required to provide further statistical evidence.

2.4.12. Baseline and operating/reporting period information

The baseline period describes pre-project conditions. The operating/reporting period describes the post-project conditions. Each item listed below should be explained and justified for both periods.

Question	Description
25	<p>Tick these boxes to ensure that this section of the impact report explains and justifies how the baseline model and operating period model and/or reporting period measured energy consumption was calculated. This includes:</p> <ul style="list-style-type: none"> • drawings and diagrams • raw data files and an explanation of any missing data • explanation • lists • descriptions • modelling, residual tests, and • other evidence as required.

2.4.13. Abatement calculations

You must provide details for the abatement calculations and explain how the final abatement figure was arrived at.

Question	Description
26	<p>Tick these boxes to ensure that this section of the impact report includes all of the information, documentation, descriptions, modelling and data, which explains and justifies the abatement calculations. Refer to the M&V specifications as required.</p> <p>This includes:</p> <ul style="list-style-type: none">• description• worked calculations• factors used, and• assumptions used.• mathematical justification and statistical evidence

2.4.14. Decay factor (if applicable)

Where forward creation has been used, the decay factor must be used to describe the expected drop off in abatement over time.

Question	Description
27	<p>Tick these boxes to ensure that this section of the impact report includes all of the information, documentation, descriptions, modelling and data, which explains and justifies any decay factor used.</p>

2.4.15. AM&VP's report

You must submit an AM&VP report for every impact report submitted to us. The AM&VP's report is an independent third-party assessment of your impact report. You should contract a suitably qualified AM&VP from the Register of Approved M&V Professionals (found at www.veu-registry.gov.au/register-measurement-verification-professionals) to undertake a verification report for each impact report required of the project. The verification report can be either basic or detailed.

A **basic verification report** assesses the M&V process, ensuring that it is compliant with IPMVP principles and that the M&V plan that was included in the project plan, was adhered to. We will carry out the remainder of the assessment.

A **detailed verification report** assesses everything in a basic report and it also assesses the modelling, calculations of abatement back to references and raw data, checking that all the numbers are correct and verifiable. We will only need to carry out a very basic assessment following this type of verification report. Refer to the Guide for Approved Measurement and Verification Professionals for further information on AM&VP's report.

Question	Description
28	Give the name of the AM&VP who has verified this impact report.
29	Tell us whether the verification report is a ' <i>basic verification report</i> ' or a ' <i>detailed verification report</i> '.
30	Select whether the AM&VP has recommended any improvements to your impact report. If yes, provide details of the recommendations you have already addressed or will be addressing in future.
31	<p>Advise whether the AM&VP has declared to you that they have provided an independent opinion.</p> <p>If using a detailed verification report, you must check the box to confirm that the AM&VP is and has been independent from the AP at all times during the project, and that this has been declared in their verification report. This means that for this type of report they cannot be an employee of the AP, or any subsidiary or parent company. If you are using a basic verification report then the AM&VP does not need to meet this independence requirement, but both you (the AP) and the AM&VP must have sufficient processes in place to demonstrate that the AM&VP is independent of the project. You may be required to provide evidence that these processes are in place.</p> <p>For both types of verification report you must check the second box to confirm that the AM&VP has declared that they have been fully independent of the project at all times before reviewing the impact report.</p>

2.4.16. VEEC assignment form

An authorised representative of the energy consumer must assign rights to create certificates to you, the AP. This still must be completed even if you are also the energy consumer.

Question	Description
32	<p>An authorised representative of the energy consumer must assign rights to create certificates to you, the AP. This still must be completed even if you are also the energy consumer.</p> <p>The VEEC Assignment Form for Project-Based Activities must be completed and signed by you and the energy consumer. This only needs to happen for the first impact report.</p> <p>For multi-site projects you must provide a VEEC Assignment Form for Project-Based Activities for each individual energy consumer.</p>

2.4.17. Application format

You must provide details of any templates you have used instead of the standard Impact Report Approval Form.

Question	Description
33	<p>You must provide details of any templates you have used instead of the standard Impact Report Approval Form.</p> <p>Selecting 'Yes' in answer to this question means that only questions, declarations and signatures from this point onwards need to be provided.</p> <p>You must have had your template approved by us prior to selecting 'Yes'. Please contact us via VEU Support at veu@esc.vic.gov.au to discuss your proposed template.</p>

2.4.18. Declaration

You must agree with and certify that you have understood and will comply with the declarations listed in the Impact Report Approval Form.

Question	Description
34	<p>All declarations must be read, understood and complied with. Your signature and that of an appropriate witness must certify these statements.</p>

Document version control

Version	Amendments made	Date published
V1.0	First release following the introduction of the Victorian Energy Efficiency Target (Project-Based Activities) Regulations 2017 on 19 June 2017.	1 August 2017
V2.0	Updated to new Victorian Energy Upgrades template and updated requirements including application for impact report approval and VEEC assignment	14 December 2017
V2.1	Updated table layout	16 February 2018
V2.2	Removed sections on insurance, risk management plan and any other information that is already covered in Measurement and Verification Method Activity Guidance. Re-templated tables to correspond to question numbers in Scoping Plan Approval Form, Project Plan Approval Form, and Impact Report Approval Form.	24 September 2018
V3.0	Renamed document as Measurement and Verification Method Compliance Requirements. Updated terminology, document names, hyperlinks to VEU Registry pages, use of URLs. Updated requirements for AM&VP independence for basic verification reports. Updated the time at which lighting products need to be listed on the Register of Products.	11 December 2018
V3.1	Added multi-premises project requirements. Clarified record keeping requirements, registration of interest, M&V planning, behaviour change, insurance, savings estimates, project team, project dates, missing data, statistical tests, 10% rule for option C. Added new lighting and photographic evidence requirements. Corrected minor errors and adjusted document structure in Section 2.	12 September 2019
V3.2	Changed terminology from 'activity start date' and 'activity end date' to 'project works start date' and 'project works end date', respectively.	11 February 2021

