Summary of consultation responses:

There were responses from 92 individuals[i] of which 72 provided an email address. Forty-one of the responses were from identifiable organisations.

Following the consultation it was determined to explore the use of the Standard Assessment Procedure (SAP), to update the Approved Documents and to bring forward electric vehicle charging requirements via the Planning system.

Detailed Responses:

Question 1: Do you agree that the standard of airtightness for all new dwellings should be less than 1 m3/h.m2 at 50 pa? ie. a near zero carbon level of construction.

Voting
Yes – 24
No – 55
Not answered - 13
Comments - 80

Summary of Comments
Those against the proposal to require new dwellings to be less than 1m3/H.M2 at 50pa cited reasons such as the cost of implementing it - making houses too expensive; that too restrictive airtightness levels will result in lack of adequate air flow, condensation, damp and consequential health issues including rising carbon dioxide levels within homes. It was felt that the standards were too extreme for our climate and any savings in fuel bills would be eaten up by repair and maintenance of the new technology and the short lived external materials and increasing need for de-humidifiers.

There was also concern that the methods of achieving near zero carbon are complex and not understood by builders or owners. The industry needs more notice before this becomes a requirement as they are not adequately prepared or financed for this. Such a regulation brought in at speed could see building companies and architects go out of business.

It was felt that the skill set on Island is not abundant enough to deliver that type of building in large quantities and that there should be apprentices coming through the system who are trained to deal with this. It has to be an evolution not by force.

It was suggested that it would be far better to have an ongoing measurement of energy use and energy recovery/efficiency from mechanical heat recovery and heating systems to give real-time energy consumption and associated CO2 emissions.

Other respondents felt that the proposals were necessary to address national carbon reduction targets. In order to reduce co2 emissions good insulation and air tightness is essential so the Department should work to the highest standards available. The EU Directive of Energy Performance would be a good standard to adopt. It was acknowledged that there would be an uplift in cost above traditional construction methods but that this would be reasonable and would give an enormous improvement on efficiency – upto90%.

It was suggested that capital costs were short term relative to whole life costs, social benefits (poorer people will have more available income and better housing) and environmental benefits.
The view was expressed that as this becomes the norm uplift costs will reduce – similar to when double glazing was introduced.

Other benefits were cited as being new opportunities for new energy companies of those buildings yet to be refurbished, increase in value of energy efficient buildings and an increase in IOMG reputation.

It was clear that the view of many was that if increased airtightness was introduced then this must be considered alongside mechanical ventilation as well as better insulation.

Consideration should be given to heat recovery systems.

It would be more appropriate to consider introducing a Target Fabric Energy Efficiency (TFEE) standard as outlined in Part L1a of the Building Regulations in England (2013 edition incorporating 2016 amendments) instead. If the aim is to achieve a lower carbon standard then tightening the carbon compliance standard, as has been done in England in Part L1a 2013, should be considered.

Question 2: Do you agree that the standard of airtightness for all new dwellings should be 3 m3/h.m2 at 50 pa?

Voting
Yes – 38
No – 40
Not answered – 14
Comments - 63

Summary of Comments
There were similar concerns raised to this question as there were to the first. Many felt that the existing levels were adequate that that anything greater than 5 m3/h.m2 will require a mechanical ventilation system to be installed to ensure there are sufficient air changes. It was felt that this would cause additional energy consumption, maintenance costs and risk to health in the event of a failure. Whilst understandable in cold weather, operating a mechanical ventilation system in the summer months will introduce further waste and additional CO2 consumption.

It was questioned by the UK hadn't adopted such a figure and suggested that it would be more effective to introduce a Target Emission Rate as per the UK which factors in the CO2 emissions of the whole dwelling.

The idea that there is one perfect level of airtightness is fraught with significant danger: it locks in designs to existing technology levels, and removes the right of dwelling builders from making the decisions about what level of airtightness is right for their own building.

Others felt that the proposal did not go far enough and would prefer 1m3 but if this is not approved then as low a figure as possible should be set. This could be seen as an interim step, but only if it is made clear to the construction industry that they need to plan for the higher standard.

Some builders said that Level 3 can easily be achieved. Others felt that it was reasonable but it would be better to use the current UK approved document in its entirety rather than tinkering with the figures with in that document so it's simpler.

Caution was expressed at how Standard Assessment Procedure (SAP) calculations are used whereby they can be manipulated to 'adjust' the SAP rating.

It was commented that some people might vote against this because they think the standards are not high enough.

Question 3: Do you agree that the standard of airtightness for all new buildings other than dwellings (those which already require building regulation approval) should be 5 m3/h.m2 at 50 pa?

Voting:
Yes – 45
No – 29
Not answered – 18

No comments were made.

Question 4: Do you agree that all new dwellings should be tested for airtightness and not just a sample that is the current policy?

Voting:
Yes – 44
No – 33
Not answered - 15
Comments - 63

Summary of Comments:
Many respondents who commented felt that all new dwellings should be tested for airtightness. The point was made that it is a compliance test (testing a building has been built in accordance with good workmanship) rather than a design issue. Consequently the only way to prove a building complies with air tightness is to test it.

The view was put that sample testing is insufficient, and does not provide any consistency or guarantee for new property.

It was implied that sample properties could be prepared to a higher standard than the other properties, is not representative and the other properties are usually finished to a worse standard.

The present system does not provide a guarantee for property owners. Purchasing a house is the biggest expense most people incur and they need the assurance it is built to at least building regulation standards, this cannot be guaranteed unless all houses are tested.

The Air Tight Testing and Measurements Association (ATTMA) holds data to show that untested plots score significantly worse than tested plots.

The Island would be the first nation to enforce 100% testing and would put the IOM years ahead of other countries.

Another view is that a sample test is adequate provided Building Control choose the sample and not the developer. This should be the case especially on larger developments as there can be significant differences in the quality of workmen, site managers and or quality control personnel on a development. The case has not been made for moving to tests for all new dwellings rather than a sample. It is likely to be disproportionate. The approach in other countries in the British Isles should be compared. Part L1a of the Building Regulations in England (2013 edition incorporating 2016 amendments) requires air pressure tests on just three units of each dwelling type in any development (or 50% of each dwelling type whichever is the less). If it was felt necessary then maybe a higher proportion of buildings should be tested rather than every building. Making such tests mandatory would increase the cost to Government and/or increase the cost to home builders. This will make housing more expensive.

The view was made that testing should not be mandatory at all and should be up to the builder of the dwelling or the prospective house buyer.

There is some disquiet from small house builders that they have not had enough training, don't know how to price up such works and don't really understand it.

Another small house builder explains that he is tested on every property and has passed all tests, yet large developers only need a sample.

It was suggested that due to weather conditions changing air sealing can come undone before a test is due. Air Barriers should be capable of lasting the expected lifetime of the building, but may be affected during the build process. Designs should consider the ease for the builder to easily achieve air tightness, training should be given to designers and to builders so that they know what is expected of them to achieve and maintaining airtightness. Having a Pre-Test at 'sealed stage' (before final surfaces are applied) finds and seals potential problems areas sooner, and far less expensively than at the final test stage.

Question 5: Do you agree that new extensions to buildings should be tested for airtightness?

Voting:
Yes – 31
No - 47
Not answered – 14
Comments - 63

Summary of Comments:
In favour of extensions being air tight tested is that any good work undertaken in building the original property could be undermined if the extension is poorly implemented. Furthermore it could help address the performance of the existing housing stock, with the added benefit that the remainder of the building would probably be tested at the same time and improvements made, thereby providing better energy efficiency across more of the islands housing stock. It was stated that extensions can be a large proportion of the dwelling. A suggestion was made that whenever heating systems are replaced testing should take place. A 'Heat Energy Requirement' proposal for replacement heating systems will have a greater effect on energy reduction than any amendment to the current building regulations alone.

It was suggested that this ought to only be for extensions for which Building Control approval is needed, or other size criteria – such as where the extension is over 20% of the size of the original house.
The alternate view was that extensions can already be expensive and this is just an added expense. It ought to be up to the builder or the home owner to do this voluntarily.
It was suggested that there ought to be flexibility to deal with historic buildings or those that are stone built as those buildings may function differently and have moisture issues which need to be accommodated. However it was commented that many stone buildings have better insulation levels than extensions built onto them.

Question 6: Do you agree that insulation standards for new buildings are sufficient at the present time?

Voting:
Yes – 55
No – 25
Not answered – 12
Comments - 54

Summary of Comments:
Government's Policy on Sustainable development identifies that we must "Eliminate emissions from heating appliances which run on fossil fuels by removing the need to heat buildings in the first instance". To achieve this significantly greater levels of insulation are required. Heating and lighting is very expensive so insulation needs to be as good as possible. Insulating is a cost effective way to conserve energy. There are sufficient products available to better the requirements. If projects are better planned and managed the procurement of those materials will not be hampered.
Some respondents felt that a different approach would be better with a SAP test or Target Fabric Energy Efficiency standard, and that buildings work in such a way that insulation, thermal bridging, air tightness etc should be considered together so that the person carrying out the work has the choice in how to achieve standards.
Some indicate that there are limitations on the availability of suitable materials so new standards should not be introduced until they are. They indicate that the client can make these changes later if they wish rather than having such an expense at the outset.
The comment was made that people in existing, older properties will need more help to bring their properties to the best standard. New build in the Isle of Man is a tiny percentage of the existing housing stock in contrast to the sqft of Victorian Residential Buildings which are high maintenance, poorly insulated, poorly constructed, susceptible to dampness and difficult to thermally improve.
In addition there was concern in respect of standards imposed when a building goes through a change of use. At the current time these can prevent many beautiful dwellings from being used for tourist purposes as they do not meet newer standards and applying such standards would not be appropriate or cost effective for an older building. There should be flexibility built into the system to allow for a level of reasonableness.

Question 7: Do you agree that Energy Performance Certificates should be introduced either within the Building Control Regulations or separate Regulations as appropriate?

Voting:
Yes – 47
No – 36

Not answered – 9
Comments - 113

Summary of Comments:
Many respondents stated that it was appropriate for purchasers to understand the Energy Performance of the building they are purchasing or renting. It would enable then to have an understanding of the running costs of the building, and it would be helpful to be able to make comparisons. With new build properties, EPCs would further incentivise builders to ensure they had a good rating as people would compare the properties with other new builds, particularly if the certificates are posted on web-sites. It was commented that they are not a significant cost, particular when compared to huge estate agents fees. It was suggested that if we wish to attract people to the Island, those people will want to see EPCs. The EPC pack should advise the property owner on how to improve the energy efficiency of that building.
EPC are now common place in UK and Ireland and have driven higher standards at minimum costs. The emphasis is placed on constructors and owners to ensure that properties meet modern standards and drive carbon footprints down benefitting the home owners and the environment as a whole.
It was suggested that these should be compulsory for other building types and tenures also with rents based on the scores.
Others believed that EPCs were a waste of time and money. That they have not achieved anything in the UK and there is no evidence to show that insulation standards have improved as the results can be 'manipulated'. One view is that buyers prioritise other factors such as aesthetics, transport links and security over energy efficiency. The structural survey is usually relied upon for in depth information on levels of insulation which is an indication to energy consumption within a property.
It was suggested that only qualified engineers, architects or surveyors should be permitted to carry out the tests and certify them, they have a background in construction and building technology which is critical to the process. If it simply becomes a box-ticking exercise it would be open to abuse and poor practice.
There was a view that if a prospective tenant or purchaser wants to obtain an Energy Performance Certificate (EPC), or if a prospective landlord or vendor wants to provide an EPC, they can currently do so. Given that there is apparently no difficulty with people obtaining EPCs of their own free will, there is no need to make such requirements mandatory. Imposing the cost of EPCs on people who do not want EPCs will make housing more expensive which is bad.
There is concern about what the impact might be on many of the older properties as it could make them harder to buy with a mortgage etc thus favouring new build properties. This balance between new and old properties needs careful consideration.
It has also been suggested that rather than adopting the same methods of assessment in the UK EPC, the Isle of Man could adopt its own, more robust and appropriate Energy Performance Indicator. This would not only take into account the measure in the UK EPC but also include airtight testing, Infrared Thermal Performance plus a number of other factors and make comparisons about how well that building could perform against similar housing types. From the results the owner/occupier (or buyer) can see where the most effective solutions for energy savings can be made. The cost of these need not be much more than EPCs and would reduce relatively over time.
Currently in the UK they can be viewed as no more than an indicative guide as the time spent on such assessments is minimal and merely a tick box exercise in many cases. A requirement for SAP calculations in new build would be more effective, the EPC being a derivative of the SAP assessment.

The point was made that buildings should be constructed to minimum energy performance standards and a certificate will just add extra cost and bureaucracy. Separate regulations to introduce standards retrospectively against which older properties will be measured will increase the costs of property transactions and increase the property sale times. This would be unwelcome.
Similar to other comments, if EPCs are brought in, they should be phased in to allow training and preparation to take place and the market to grow.

Question 8: Do you agree that charging points for electric vehicles should be provided for all new dwellings that have off road parking provision?

Voting:
Yes – 65
No - 24
Not answered – 3
Comments - 75

Summary of Comments:
Many people responded to say that they feel electric vehicles are the inevitable future, and consequently houses will need charging points and that it is far more economical to install as construction takes place. Further, the Government should be encouraging the purchase and use of electric vehicles. It was suggested that only the provision for charging points should be introduced. i.e. a minimum 32Amp circuit to a suitable location on an outside wall. The installation of the actual charger is not necessary as the prospective owner may not have a vehicle and a charger is an expensive waste of resources if it is not used. It is easy to install a circuit during build and very simple to retrofit a charger to an existing circuit.
There should also be fast charging point locations within communal areas available to first time buyers, but the points should be provided only by either the local commissioners who charge at a fixed unit rate or by the utility provider also at a fixed rate.
Having charging points for off road spaces does not address the situations where cars have to park on street. The MEA should enable owners to charge on street ie from street lighting columns as is starting to occur in the cities of the UK and Germany.
Those who are not in support indicate that imposing such rules will increase the cost of housing and would give unfair and unnecessary preference to a particular form of vehicle fuel technology. It is not obvious that all new houses will want to have electric charging points: it is possible that other technologies will arise instead. People can construct charging points voluntarily if they desire. It is suggested that a more logical solution would be to announce it will be mandatory by 2021 when it will be needed more.
Others suggest a move towards hydrogen power to be a far better solution and would overcome the difficulty of if you live in a town or a block of flats and can't park near your property. Government has very few vehicles that are electric. If we had a hydrogen fuel strategy it could be used to power Government's wide fleet of vehicles.
A number of comments suggest that Building Regulations should be confined to the control of energy conservation in buildings and that such measure are more the remit of planning negotiations and not building control.

Question 9: Do you agree that a percentage of car parking spaces provided with commercial developments should be provided with charging points for electric vehicles?

Voting:
Yes – 72

No – 17
Not answered – 3
Comments - 63

Summary of Comments:
Many respondents agreed that more charging points need to be available island wide if we are to encourage use of electric cars and this should be at work and at home. People may not have had the opportunity to charge their vehicle at home. Ducting and cable laying at design and planning stages is easier than later when paths, roads and car parks would need to be dug up. Faster charging systems require more than one phase of power so location is important.
All new commercial developments should have the infrastructure built in to future proof and allow for increased use of E Vehicles. One in 4 parking spaces should have charging points to promote the use of E Vehicles across business's but this should run hand in hand with initiatives for business users.

Some respondents felt that companies and the Isle of Man Government should lead the way with electric vehicle provision. All business vehicles should be electric and subsidised by tax incentives.

Others felt that charging points in commercial developments was not necessary, unless vehicles are kept at the premises overnight. There was concern that imposing such rules will increase the cost of constructing commercial developments which would be bad. That such a rule would give unfair and unnecessary preference to a particular form of vehicle fuel technology. It is not obvious that all new developments will want to have electric charging points in the future: it is possible that other technologies will arise instead. People and companies can install charging points voluntarily.

The view was made that the Isle of Man is only 32 miles long and modern electric cars have ranges of at least 150 miles so charging points are not needed in commercial premises. Another queried why this would be proposed when we do not provide petrol pumps for visitors.

Question 10: Do you agree with the introduction of a requirement to provide ductwork for high speed internet cabling at the time of construction?

Voting:
Yes - 62
No – 25
Not answered – 5
Comments - 68

Summary of comments:
Many respondents felt that providing ductwork or cabling within an estate up-to a point inside each property was appropriate, although some thought that this was already standard practice. It was felt that the mandatory provision of ducting for the use of (fibre-optic) cabling at the time of construction, would significantly assist in the provision of high speed communication services in the future. Ducting that should be able to have spare capacity to add other utilities at a later date. This would negate the need to open up for retrospective in installations. The point was made that telephone lines, electricity and gas are provided for so it was expected that this would be provided at the same time.

Others felt that this would be market led.

Whether such ductwork should be provided internally received a mixed view with some commenting that it would negate the need to open up surface finishes after the house is complete whereas others felt that it was up to owners whether or not they want technology in their home and if they do they can pay for it. Many felt that 10 years ago this would have made sense but with the recent technological shift towards wireless communication it is not necessary.

Question 11: Do you agree that a minimum requirement for the certification of fire alarm and emergency lighting systems should be introduced?

Voting:
Yes – 73
No – 11
Not answered - 8
Comments - 51

Summary of Comments:
There was general agreement that there should be certification of fire alarm systems, although there was concern about who would do this, whether it would become a money spinner and it being noted that the Fire Department could not be expected to undertake this work.

Comments were made that electrical contractors already produce the paperwork for fire alarms and emergency lighting systems so it would just be formalising practice already in place for new buildings. The quality of certificates varies so standardising these would be preferable. A third party should test installations. Consideration should be given to requiring annual testing. The quality of some associations is questionable and it would be better carried out by someone of authority (within a public body).

It was suggested that requirements for the certification of fire alarm and emergency lighting systems ought to apply to public buildings, commercial premises, flats and rental properties, but that only certification of fire alarm systems should apply to domestic houses. While they should apply to historic buildings, the method of installation in these buildings should be flexible.

Consideration should be given to equipment becoming obsolete and how maintaining equipment or retrofitting new equipment should be dealt with.

It was also suggested that water quenching systems could be provided in all new buildings and that a misting system is fine, obviating un-necessary damage caused by traditional more costly liquid water sprinkler systems.

Question 12: Do you agree that Carbon Monoxide detectors should be fitted with new and/or replacement appliances that are capable of producing carbon monoxide?

Voting:
Yes – 82
No - 5
Not answered – 5

Comments - 49

Summary of Comments:
Although some responses indicated that such a decision should be left to manufacturers, installers and the home owners most responders were in support of such a move, stating that installations are relatively cheap, efficient and save lives. It was noted that the trend for multi-fuel burning stoves means that it is essential carbon monoxide should be detected.

The point was made that accredited group members already fit some as standard – it was also noted that many appliances are not fitted correctly or not maintained properly.

Further comments were made that the detectors should be integrated with the fire alarm system and not stand alone so that they can be monitored and mains backed. The point was made that there should be regular testing of the detectors.

A couple of comments suggested that there was no statistical evidence provided that gas or oil based appliances are causing issues (although one responder cited a particular example where a gas boiler nearly caused the death of a relative) and that the current controls which are in respect of solid fuel appliances only should be retained.

It was suggested that the installation of detectors could be linked to air tight testing and/or EPCs where it would not be unreasonable to add questions to these reports such as: Is a Carbon Monoxide Detector Required; Is a Carbon Monoxide Detector Present; Is Carbon Monoxide Located Correctly; Has occupier been informed a Carbon Monoxide Detector is Required? Not only would this encourage more installations but government would gain valuable information.

Question 13: Do you agree to the Department introducing the up to date Approved Documents as outlined above to support the Building Regulations?

Voting:
Yes – 63
No – 22
Not answered – 7
Comments - 68

Summary of Comments:
The Isle of Man should be up-to-date and should not lag behind the UK. The Approved Documents are developed by the Building Regulation Advisory Committee. That group draws on the experience of its members and the further knowledge of construction industry expertise. They do not provide barriers but a more controlled manner in order to provide decent quality buildings, through continued development, why would the Isle of Man not wish to take advantage of means tested solutions and legislation already in place in the UK. We have the same climate and living conditions as the UK so why not follow their guidance following their extensive BISRIA research. The difference between legislation causes confusion and arguments. DEFA policy should be to automatically adopt future changes to English regulations, and thus follow the improvements in standards which underpin them.

Some respondents agreed but with caution stating that some Building Regulation requirements in the UK have not been successful or useful and can add considerable unnecessary cost to a project and indeed may conflict with other legislation. There should

be professional analysis of the UK shortcomings and issues and we should only adopt them where there is an improvement.

Others felt that the UK's guidance is to change shortly as it is not fit for purpose. The Island should get a step ahead of the UK and having our own standards will allow flexibility to update them easily. Amending the documents will give struggling contractors more headaches.

It was felt that if we are to achieve new UK standards the Government must understand there will be a requirement for significant financial investment to improve standards in design and construction.

Some builders commented that they are already complying with higher off-Island standards where these are more cost-effective. Blanket standards may well prohibit both the construction industry and general economy whereas currently design professionals are pushing standards where appropriate and economically viable.

Concern was again raised that the Island may not have sufficient specialist knowledge on the Island to introduce a number of these updates and that there should be better communication with contractors – providing them with updates and assisting with training. Changes can then be brought through incrementally over a reasonable time span.

There was a suggestion that we should look to more progressive countries such as Sweden rather than England if we really want to improve our building standards.

There were some more specific comments regarding the inadequacy of regulations in relation to the siting and installation of wood-burning stoves and the siting of the flues.

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[i] There were 553 completed responses to the consultation of which 464 were identified as being from either between 1 to 3 individuals.