

## Smart Metering Implementation Programme: Consultation on the second version of the Smart Metering Equipment Technical Specifications (URN 12D/258)

### Response from Siemens

## Statement of interest / Executive Summary

Siemens, through its Metering, Communications & Services business unit, is one of the largest independent providers of metering services to the electricity, gas and water industries in the UK. It serves all segments from domestic consumers through SMEs and commercial customers up to major energy users.

Through its Infrastructure & Cities sector Siemens provides smart grid, distribution, and connection solutions as well as building technologies from a residential up to an industrial scale. Siemens is active in these segments throughout Europe and much of the rest of the world.

As an established market participant Siemens is actively engaging with the UK smart market from an asset management, meter installation and data management perspective and our responses reflect our views in these areas.

In general we are supportive of the Government's position regarding SMETS 2 particularly with regard to single homes. However, more attention needs to be given to multi-dwelling premises (MDUs) where the technological solution and ownership of the installation as well as the equipment is significantly more complex. We believe that further clarification is required to ensure clear responsibility for the provision of the communications network to the meter and to the IHD where this cannot be satisfied using a standard communications hub and where a shared network within a building is the most cost effective technology solution for all parties concerned.

## Questions and Answers

Answers in blue. Note: where questions appear in grey rather than black we believe that other parties are better placed provide an opinion and have therefore chosen not to answer.

### 1. Do you have any comments on the criteria used in the evaluation of the application layer standards?

Siemens support the analysis presented in sections 10 – 45. We would re-iterate our response to all previous consultations on this point, believing that the advantages in identifying a preferred solution *even although it may currently have certain limitations* greatly outweigh the disadvantages of uncertainty. Developers can now focus on the task of solving second-order challenges such as extended range on a basis of real market need.

Zigbee SEC / DLMS provides an appropriate basis. However, the Zigbee specification is clearly moving towards v2 with a capability for IP addressing. This brings additional features which will be beneficial to the more advanced implementation of smart metering particularly as currently emerging technologies such as e-mobility and micro-generation become more mainstream and widespread.

The selection of Zigbee SEC v1 appears to be driven by the lower power consumption of this variant as opposed to a deeper evaluation of the comparative long term capabilities. The single driver for use of v1 seems to be the requirement for mirroring of the gas meter and the need for a long (15 year) service life of the battery fitted in the gas meter. While this

makes sense it does imply that the selection of the older standard v1 ahead of the v2 is being driven by this need.

We would propose that consideration should be given to adopting the v2 standard in the hub and other HAN elements but the option of limited v1 operation to the gas meter should be retained where the increased battery life is important.

**2. Do you agree with the proposal to adopt ZigBee SEP / DLMS as the HAN application layer standards for GB?**

Yes, we strongly support this.

**3. Do you agree that equipment should be required to comply with SMETS and a GB Companion specification for ZigBee SEP / DLMS?**

Yes, we strongly support this.

**4. Do you agree with the overall approach proposed in relation to the HAN physical layer? If not, please provide a rationale and evidence for your position.**

Yes, however, we believe the issue needs to focus on the solution and the process for the installation of single fuel smart meters. Ensuring the first fuel supplier installs the appropriate solution will enable the other fuel solution to connect without changing the technology.

**5. Do you have any comments on the criteria used in the evaluation of the physical layer of the HAN?**

The evaluation criteria were rather simplistic, concentrating on the relative impacts of frequency on range and penetration with minimal practical consideration given to the modulation schemes. Whilst the results clearly show the benefits of a sub-GHz HAN there may have been a reduction in the differentials if suitable modulation schemes had also been taken in to consideration.

**6. What are your views on the compatibility of the reserved spectrum 870-876MHz with 868 MHz and the value of considering the use of this band?**

Siemens would support every attempt to secure this spectrum for HAN usage although it is important to note that any solution must also be able to support the unlicensed section of spectrum as there is no guarantee of gaining a licensed element.

**7. Do you consider that additional measures should be taken to encourage the development of an 868 MHz solution?**

Yes, a perceived small UK market will not drive development. Without a readily available solution deployment behaviour will leave difficult properties until later when the volumes are quantifiable. The requirement to develop dual band at an early stage would reduce this possibility and minimise stranded costs associated with the first meter fitted when the second fuel is deployed. Where a 2.4MHz comms hub is fitted but does not support the follow up second fuel installation then it can be exchanged for a dual band comms hub without compromising the initial meter and IHD that has been installed. The CSPs 2.4MHz comms hub can then be redeployed in another property.

**8. Do you agree with the approach to allow the market to determine the balance between 2.4 GHz and 868 MHz? If not, please provide rationale and evidence.**

Yes, but CSPs should be mandated to supply a sufficient volume of dual band comms hubs and a commercial approach needs to be developed to avoid dual band (with its higher costs) becoming the preferred option for installers.

**9. What are your views on the three options identified for displaying wireless solutions (i.e. 2.4 GHz as the default; dual-band communications hubs; or market led)?**

**Option 1.** This may not provide a robust solution since with other options e.g. the use of repeaters or wired solutions, the HAN reliability could be compromised (if consumer power is required or wiring is used).

**Option 2.** Dual band has the advantage of delivering a solution that should work when the second fuel smart meter is installed and therefore reduce the likelihood of comms hub asset stranding. However, this option would not aid the consumer in purchasing the correct products to interface with the hub as the consumer would be unaware which frequency would work for certain appliances etc. This would lead to non metering products probably defaulting to 868MHz to ensure compatibility with all properties.

**Option 3.** This could create a challenge for single fuel installations leaving the risk of stranded asset costs when the second fuel installation will not work with a 2.4GHz hub. Both the hub and the initial meter will require changing. The market led option will also create future interoperability issues and customer confusion.

Our conclusion is that 868MHz becomes the standard (ensuring that all devices can use the HAN) and regulatory intervention may be required to ensure timely availability. Early deployment of 2.4GHz only HAN can be allowed but this would distort the market by encouraging 2.4GHz consumer devices to be used when 868MHz is the desired position for interoperability in the longer term.

**10. Do you agree with the proposal for a 'fit for purpose' installation obligation on suppliers?**

The proposal for a 'fit for purpose' installation needs to be considered for the different key scenarios envisaged, namely consisting of two suppliers single site, multiple suppliers complex site.

Where the installation is being pursued in a standard dwelling and standard equipment is sufficient it would seem reasonable to consider that the first installation should be undertaken using standard equipment that can be utilised by the other. This can clearly be accommodated, in particular where the electricity installation is undertaken first due to the connectivity of the comms hub. From a practical perspective, however, it must be questioned where gas has been initially installed.

We do not, however, believe that 'fit for purpose' installation obligations should sit with supplier for Multi-dwelling properties e.g. blocks of flats.

Because of the disparate meter locations and significant distance between meters and IHDs, we strongly believe that the CSP should be obliged to make the building "comms Smart Metering Implementation Programme: Consultation on the second version of the Smart Metering Equipment Technical Specifications (URN 12D/258) – Response from Siemens

ready" enabling energy retailers to install compliant smart metering systems in line with their deployment plans into an already operational 'Neighbourhood Area Network (NAN)'.

The alternative view, that of the energy retailer needing to create their own bespoke HAN to link smart metering devices (and enable IHDs to be updated effectively), is a highly expensive and technically complex option which will struggle to withstand change of supplier events from both a security and commercial perspective.

**11. Do you have any views on the proposed approach to developing a wired HAN solution?**

It is clear that there are a wide variety of communication requirements created by different building materials and metering positions, particularly in large and multi-dwelling buildings that cannot be accommodated by the proposed Wireless solutions. A wired option is an efficient resolution to these problems that does not create a significant diversion from the standardisation being proposed and as such should be pursued. Consequently, Siemens are supportive of the proposed approach and would wish to work with DECC on developing a wired HAN solution as part of DECC's HAN trials.

**12. Do you agree with the proposed scope of functional requirements for a communications hub? Are there any other functions that should be included and what would be your rationale for including those functions (including estimated costs and benefits)?**

Siemens agree with the proposed scope for 'standard' communication hubs. However, we believe that the solutions for difficult buildings – particularly high-rise where the HAN set up will need a non-standard infrastructure – requires special consideration. The hub also needs to support connection to other micro-generation meters and facilitate fault finding and logging of communication 'tries' to HAN devices. These must be included in the SMETS 2 standard.

**13. Do you have views on the specification for an 'intimate' interface between electricity meters and communications hubs?**

The key consideration is to ensure that the intimate interface is fully secure and unable to be tampered with, as well as being truly interoperable across the full array of compliant electricity meters.

**14. Do you agree with the Government's marginal preference for the CSP-led model for communications hub responsibilities, or do you prefer the supplier-led model? Please provide clear rationale for the advantages and risks associated with your preferred option.**

Siemens share a marginal preference for the CSP provided comms hub. There is no 'perfect' solution and the split accountability for the HAN is far from ideal, but an unavoidable result of the market model.

Specific consideration should be given to difficult buildings/high-rise units where specialist HAN arrangements will need be implemented. As detailed in our response to question 10 it makes most sense for the CSP to be accountable for the installation, commissioning and service management of the in building Neighbourhood Area Network (NAN) to ensure suppliers can deploy compliant smart metering systems in line with their deployment plans



and targets. This approach will also deliver the lowest total cost of ownership for GB PLC and the most secure and effective communication solution for these difficult buildings.

We also believe that the CSP route is easier from a financing point of view as the comms asset's economically useful lifetime is potentially driven by the lifetime of the comms contract rather than that of the meter. The supplier-led model would presumably require the MAP to invoice it for the rental on a comms hub which the supplier would then need to pass on as an element to the other fuel supplier. Commercially we believe the CSP model is simpler although the details of supply and tracking of the assets needs to be worked through.

**15. Do you agree with the proposal that a CHTS-compliant communications hub should not be mandated for opted out non-domestic sites and that suppliers should be free to use whatever type of communications equipment best supports their processes and WAN service?**

Siemens agree with the Government position of not mandating a CHTS compliant communications hub in non domestic installations. We agree that there is a competitive market between energy suppliers and meter operators / data collectors that operates efficiently and facilitates the provision of energy data in a format more suitable for this range of customers. Likewise a sensible approach is additionally required to support the significant investment in 'advanced' meters that were installed in support of the governments CRC obligation, to ensure that asset rentals are not cut short as this could have a negative effect on attracting investment into the future.

**16. Do you agree that the gaining supplier should bear the costs of installing an appropriate communications hub if they decide to switch between opted in and opted out?**

Siemens agree that where the customer has not expressed a specific position themselves and where the energy supplier chooses to switch from an 'opted out' to an 'opted in' position the obligation should rest with the energy supplier. In the non-domestic space consideration should be given to the customers wishes and should not be automatic, particularly for those consumers who have their own metering and data collection contracts. Consideration should also be given to the preservation of 'automated' metering assets, as premature removal could damage future investment.

**17. Do you agree that the design and implementation of outage reporting functionality should be assigned to CSPs, documented in the communications hub technical specification?**

**18. Do you agree that it would be inappropriate to require meters operated outside DCC to be required to implement outage reporting? Please provide rationale to support your views**

**19. Do you agree that maximum demand registers should be included in SMETS? Please provide evidence to support your position and provide evidence on the cost implications of delivering this functionality via back office systems or via the meter.**

As a MAP Siemens require smart meters to be as future proof as possible to avoid meters transitioning from functionality to obsolescence. Therefore if MD registers are possibly required in future billing scenarios the meter should deliver this information, although we

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see no reason why this cannot be delivered through back office systems. If a local display is required then this could potentially be achieved by a specialised IHD or from a message from the energy supplier.

20. Do you agree with the proposal not to include the capability to generate additional voltage alerts based on counter thresholds in SMETS 2? Do you have any evidence that could justify including this functionality in SMETS 2?
21. If DNOs were permitted to access remote disablement functions, should control logic be built into DCC systems or meters? If the logic should be built into meters, should the logic be specified in SMETS 2? Please provide rationale to support your position including estimates of the cost of delivering this functionality under the different options being considered and any evidence relating to safety issues associated with each option.
22. Do you agree that variant smart electricity meters should be specified in SMETS 2 and that the cost uplift for variant smart meters is similar to that for variant traditional meters? Please provide evidence of costs to support your views on cost uplifts.

Yes we agree that SMETS 2 should cover variants. This will remove any uncertainty that a variant meter is SMETS compatible. Since part of variant functionality is separately programmable then the DCC needs to be able to recognise and deliver commands and events to manage these functionalities, e.g. a voltage alert on one phase or a failure of a load control switch on a dual element meter. We do not have any evidence to support what meter variants might cost.

23. Do you agree that randomisation offset capability should be included for auxiliary load control switches and registers as described above? Do you have views on the proposed range of the randomisation offset (i.e. 0 – 1799 seconds)? Please provide evidence on the cost of introducing this functionality.

From a wider Smart Grid perspective we would wish to see a randomisation offset capability included to prevent any heavy load surges. We would therefore consider the randomisation offset to be important and are happy with the proposed range of offset, which is in line with offsets previously acceptable within the industry.

Nevertheless there is an important safety requirement that must be met, meaning that the actual status of load control switches can be accurately determined at all times. Thus the 'randomised status' must be available to the system at all times. It may therefore be desirable that the offsets for individual loads should at least be known by, if not determined by, the central system.

24. Do you support Option 1 or Option 2 for 'pairing' a CAD to the HAN? Please present the rationale for your choice and your views on the implications that these options have for the technical design of the solution.

In the special case of high-rise/multiple-occupancy buildings we recognise that special measures may be required to ensure that CAD's are correctly paired with the consumers' gas (mirror) and electricity meters.

On balance we prefer Option 1. Notwithstanding the overriding need for security, the process needs to be quick and simple. We believe that the concept of a 'numerical key' is

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well understood by consumers and that they are capable of handling their own keys with appropriate diligence.

We believe Option 2 has three significant drawbacks. (1) It introduces one or more third parties into the loop and places the obligation of 'consumer authentication' upon them. (2) It is likely to take longer than option 1. (3) It introduces a new high priority near-real-time messaging requirement for the DCC and its service providers.

Option 2 offers potentially high levels of security within the system but it does not solve the problem of consumer authentication; it simply transfers this obligation from the supplier to a third party.

In general, it may be considered advisable for numerical keys to be updated from time-to-time in such a way that the consumer's participation is periodically re-authenticated. This would help to prevent the accumulation over time of obsolete connections. Alternatively, suppliers may remind consumers via the billing process of the number of CADs that they have connected.

**25. If Option 2 were adopted, do you agree that obligations should be placed on energy suppliers to support this process by submitting 'pairing requests' to the DCC on request from their consumers?**

Siemens believe the CSP should provide this service. We do not see the need for energy suppliers to be involved in the process unless they are the nominated SEC party. It is the role of *nominated SEC party*, not that of *energy supplier*, that is relevant. There is a competition issue here.

Energy suppliers may choose to compete in the hitherto open market for energy services in general. Clearly smart metering is a key factor in the enabling of a wide range of energy and building control services. A consumer's request for access to his/her smart metering data may therefore be seen as a qualified sales lead to a competitive supplier of these services. It is not acceptable that such leads should be re-processed exclusively by one sector of the competitive services market. We therefore see a compelling need to ensure separation between a party's role in enabling a consumer to exercise his/her right to set up a new system and the party's role as a vendor of energy seeking to enter the related services market.

As noted in Q24, a sequence of 'requests' does not bode well for rapid response. (Presumably a 'request' may be declined.) A consumer needs to be able to see his new CAD up and running within a few minutes of plugging it in.

**26. Do you consider that other CAD installation options should be pursued? If yes, please explain the approach you favour and your reasons.**

Option 1 is basically the right approach. It puts the consumer in full control and allows her/him to take responsibility for his/her own arrangements with or without the services of third parties including his/her current energy supplier.

**27. Do you agree with the proposal to include in SMETS 2 a specification for a PPMID, connected via the HAN, as described above?**



28. Would including the capability to enable gas and electricity supply through a PPMID connected via (a) a wireless HAN or (b) a wired HAN meet GB safety requirements? What impact would including this capability have on the cost of smart metering equipment? Please provide evidence to support your answers.

29. Do you agree with the proposal that the communications hub should be specified such that it can support multiple smart electricity meters? How many smart electricity meters should be supported by each communications hub?

Siemens can envisage meters being required for different generation methods e.g. solar PV, micro-CHP, micro wind, storage supply to grid and mini-hydro. We also foresee that smart cars may need separate meters for both import and export (the import meter may need to be a subtract meter for settlement purposes to enable a fuel agreement to be separate from the household supply).

30. Do you agree that a specification for a HHT interface to the HAN should be defined? If yes, please identify the functions that this interface would need to support and the scenarios in which such functionality could be required.

Yes, the specification for a HHT interface to the HAN should be defined.

The table below sets out the functions that this interface needs to support and the scenarios when these functions could be required.

Possible functions to be supported	Scenarios using functionality			
	Installation of SMS where there is a WAN connection	Installation of SMS but no WAN / fault / unavailable	Maintenance of SMS but no WAN / fault / unavailable	UTRN failure / lost / forgotten
Local pairing of devices	✓	✓	✓	
Initiate commissioning process (associate MPxN to relevant device) and receive outcome handshake	✓	✓	✓	
Configure HAN		✓	✓	
Restore / Configure meter settings		✓	✓	

SMS firmware upload		✓	✓	
Prepayment top-ups (emergency)		✓	✓	✓

It has been made clear from previous information from DECC presented to the HHT interface working group that the HHT interface must meet the current smart metering security working principles. As currently determined, these principles exclude the connection of an HHT to the SMHAN without WAN involvement and local configuration of a meter by an HHT via the SMHAN. Revision of these principles to enable such functions would only be considered if it can be shown that the impact on the business case of not allowing those options (number of revisits and/or meter replacements) outweighs the security compromise of enabling local configuration by an HHT and/or connection of an HHT without WAN involvement. A full analysis would include an estimate of the % of installations where the temporary unavailability of the WAN connection would require a repeat visit or meter replacement, which can only come from the CSPs and the (forecast) coverage of their WAN technology.

Definition of a HHT interface standard should allow the development of a standard application for HHT irrespective of the smart metering technology equipment installed (in line with the HAN standard for smart metering). This HHT 'comms app' could then be integrated with the HHT job management application to allow the capture of data via the machine-to-machine link (HHT to smart metering system component via the HAN) to complete meter work jobs by the installer securely and without the risk of data errors through manual entry by the engineer. In addition, greater amounts of data or that which is more complex could be exchanged without detriment to the productivity of the engineer. This outcome requires that the speed and ease of communication over the HAN is suitably optimised, balancing security needs of the smart metering systems with the productivity of the engineer.

**31. Do you agree with the proposed approach to the governance of security requirements? If you propose alternative arrangements please provide evidence to support your views.**

Siemens concurs with the government's approach to the governance of security requirements.

**32. Do you agree with the proposal to establish independent assurance procedures for DCC and DCC users? Please explain your views and provide evidence, including cost estimates where applicable, to support your position. Comments would also be welcome in relation to the impacts and benefits of the proposed approach with regard to small suppliers.**

Siemens agrees with the proposal to establish independent assurance procedures for DCC and DCC Users.

We see this covering aspects such as:

- Readiness to commence testing (at market introduction)
- Readiness to mobilise (i.e. following successful proving that each participant's systems and processes are ready to operate with DCC)
- This could also cover areas of major change after mobilisation

Approval to proceed would take the form of an accreditation to join the DCC, and costs would have to cover at least:

- Testing & successful proving of readiness
- Management of the cutover process from legacy to DCC operation

Costs would cover at least:

- Central accreditation entity costs
- Each market participant's costs of preparation, proving and cutover
- Potential input and assistance from other industry bodies (e.g. registration providers) during the proving and approving activities

**33. Do you agree with the proposal that re-testing should occur at least at set intervals and more frequently when significant changes to systems or security requirements are introduced? Please explain your views.**

Siemens' view is:

- Re-testing at regular intervals with no key focus is unlikely to deliver major benefits and would be seen by most market participants as a poor investment
- However, whenever major changes are made (e.g. major IT changes, major process changes across many participants) then the analysis of risk should dictate the amount and breadth of re-testing needed. Inevitably some changes will require a major regression test. In such circumstances, Siemens would expect that a central team will coordinate manage the cross-industry test activities, most likely the DCC or DSP (as an agent of DCC).

**34. Do you agree with the proposal to establish an independent security certification scheme for smart metering equipment? Do you have any views on the proposed approach to establishing a certification scheme or evidence of the costs or timelines for setting up such a scheme or submitting products for certification?**

Siemens agree that an independent certification scheme should be established for the certification of compliant solutions to an agreed minimum standard. Due to the range and complexity of the functionality Siemens propose that competitive forces are allowed to prevail ensuring that a range of cost effective and professional testing providers are established.

**35. Do you agree that sanctions for non-compliance with security requirements should be included in the SEC? Do you have views on the nature of the sanctions that might be imposed?**

**36. Do you agree with the proposal to, in effect, extend the arrangements already proposed for SMETS installations prior to DCC operation, to all installations being operated outside DCC? Please provide evidence of the costs that might be incurred and the impact of this approach on small suppliers.**

Siemens fully support the proposal that security should be at a similar level to those meters within the DCC for meters that are proposed to migrate to the DCC or are SMETS compliant but have opted-out. Where advanced meters have been installed in opted out sites in the non-domestic sector, possibly as part of a corporate entities portfolio of sites, we do not believe it is necessary to impose DCC security standards as the data held on these meters would not be personal and the meters may not have disconnection facilities within them.

**37. Do you agree that interoperability is central to the development of a successful smart metering solution and that activities related to the assurance of SMETS equipment should be governed by SEC? Please provide views on the governance arrangements that would be appropriate for assuring interoperability of smart metering equipment.**

Siemens agree with the government's view that interoperability is central to the development of a successful smart metering solution both commercially and technically.

In line with our comments on the certification of compliant solutions we agree with the implementation of standard testing solutions for interoperability as part of a GB companion specification as a minimum. As long as competitive forces are allowed to operate a cost effective / professional range of service providers will be created.

**38. Do you agree with the creation of an 'approved products' list and the requirement on suppliers and CSPs to obtain, retain and provide evidence of appropriate certification should apply regardless of whether they intend to enrol the equipment in DCC?**

Yes - Siemens fully support the provision of an 'approved product' list.

**39. Do you agree that protocol certification (against a GB Companion Specification) should provide adequate assurance that a product will meet interoperability requirements? Please explain your views and identify any additional assurance testing that you consider to be necessary and the rationale for including such testing.**

The provision of certification to a GB Companion specification should provide a minimum level of assurance that a product will meet interoperability levels and be sufficient to satisfy all market participants. The degree of assurance will be gauged by the depth of the specification and approved testing.

Due to the number of variants anticipated, this type of testing cannot satisfy all of the combinations possible and individual market participants may be required to undertake specific additional testing of their own i.e. business process alignment, or 'gold standard' interoperability testing. These options should be made available but should be specific to each market participant and do not need to be included in the basic certification.

**40. Do you agree with the Government's proposals to require energy suppliers to operate specific aspects of smart metering equipment functionality for domestic consumers? Please provide rationale to support your position.**

Siemens fully support these proposals, especially as outlined in section 217.

**41. What are your views on the Government's proposals to require energy suppliers to operate specific aspects of smart meter equipment functionality for micro-business, but not other non-domestic, customers?**

Siemens believe that the services offered by an energy supplier to a micro-business, over and above those that they are obliged to offer to domestic consumers, is a matter for the energy suppliers themselves and does not require additional regulation.

**42. Do you agree that the licence conditions as drafted effectively underpin the Government's policy intentions for consumer operational requirements?**

They appear to do so; however, there is no single complete record of the said 'intentions'.

**43. What are your views on the Government's proposals for obligations to be included in the SEC for information to be made available to Network Operators and ESCOs via the DCC?**

Siemens support the proposals as outlined in sections 226 to 229.

**44. Do you agree with the Government's proposals for the timing of the introduction of operational requirements? Please explain your reasoning.**

Siemens support the proposals as outlined in section 229.

**45. Do you agree with the proposed changes to the smart metering regulatory framework to reflect the CSP-led model for communications hub responsibilities? Are any other changes necessary?**

Siemens agree with the proposed changes to the smart metering regulatory framework to reflect the CSP led model. In line with our previous comments we do not always believe that it will be possible for the supplier to be responsible for the comms hub installation particularly for certain multi-dwelling properties, low density rural properties and non domestic circumstances.

**46. Do you agree that the equipment development and availability timelines are realistic? Please give evidence.**

**47. Do you agree that SMETS 2 should only be designated when the Government has confidence that equipment to satisfy the new requirements is available at scale? Should a further period of notice be applied to ensure suppliers can manage their transition from SMETS 1 to SMETS 2 meters?**

Siemens believe that for the market to have a degree of certainty timescales and specifications should only be confirmed when certainty on compatibility and availability are confirmed by the manufacturers / certification assurance providers. This does not require waiting until devices are available but could be ascertained prior to that based on detailed interaction with the manufacturers.

**48. What are your views on when responsibility for the SMETS modifications process should transfer from the Government to the SEC?**



It would seem prudent for DECC to remain responsible for SMETS governance for as long as DECC leads the Smart Meter Implementation Programme and until the SEC is clearly operating effectively.

**49. Which of the options (standing sub-committee or non-standing sub-committee) would you prefer in relation to modifications to the SMETS?**

The technical sub-committee should maintain core expertise and full understanding of the technical requirements of SMETS and SEC and how and why the standards and approaches were developed. A standing committee is better placed to retain the corporate knowledge and also understand the commercial aspects that arise from modifications to the SMETS standard.

**50. Are there any particular areas of expertise that the sub-committee will need to fulfil its role, in terms of membership composition?**

Siemens would advocate that the following areas should be covered

- Security
- Testing and certification
- Firmware management
- Wireless communications
- Industry data management from a Meter Operator and Meter Asset Provider perspective
- Meter financing
- Meter design and manufacture
- Consumer technology development and interfaces

**For any questions or further information on Siemens response to this consultation please contact:**

**About Siemens in the UK**

Siemens was established in the United Kingdom 169 years ago and now employs 12,972 people in the UK. Last year's revenues were £4.4 billion\*. As a leading global engineering and technology services company, Siemens provides innovative solutions to help tackle the world's major challenges, across the key sectors of energy, industry, infrastructure & cities and healthcare. Siemens plc has offices and factories throughout the UK, with its headquarters in Frimley, Surrey. The company's global headquarters is in Munich, Germany.

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