

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

Evaluation was done by following usual and very professional state-of-the art practices.

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

In general, Standardization is needed and desired - nevertheless, DECC shall take the stability and upgrade capability into consideration - especially when it comes to remote upgradeability and network security. WAN and HAN technology lifecycles need to be aligned. Practical tests have proven the reliability and compliance of ZigBee SEP V1. DLMS is already a proven standard and final profile shall be developed.

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

Yes.

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.

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

No comments.

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?

Once the spectrum standard are set, the Industries will be able to solve any interference issues. We are part of the industry.

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

Yes - from vendor perspective, securizing the Investment is key for development. Therefore mandating dual-band would support this.

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 - for reason of economies of scale and practical implementation.

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

Presenting the options is a good overview on availabilities today - while offering the possibility to move to ultimate solution which is 868 MHz.

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

Once the options are fixed, the consumer associations shall be involved as close as possible in the choice of the HAN protocol in order to reduce the risk of irrational discussions about health issues of electromagnetic waves.

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

PLC is most probably the most adapted solution but security mechanisms must be put in place. The security model is changing when more legal entities are sharing one hub.

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)?

The scope is broad enough to meet the requirements of existing business architecture (Meter to Bill). Additional functionalities could increase the number of use cases to be facilitated with using hub functionalities. We propose on the energy management side a closer look into commercial areas of Demand/Response, Microgeneration, Storage etc. and the support of on-premise prepayment processes. There is a need for supporting future use cases by creating a application framework within the hub in order to have the flexibility to adapt the hub to fit to a broad range of existing and to-be-discovered use-cases. Initial hardware investment will go up but the hub will be capable to upgrade and adapt to evolving regulatory needs without being forced to replace the hub.

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

The interface options shall be clearly defined and specified. Interoperability of the hub with other devices and interchangeability shall not be affected.

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.

Open market for services will be reached when the operator of the hub acts independently from service providers and grants non-discrimination access for third party applications from any market player the consumer wants to buy a service from. The solution shall end up in the installation of a secure, CHTS-conform hub with minimized total cost of ownership. With respect to the proposed options and variation of functionalities which are permitted in SMETS2/CHTS it makes sense to organize the sourcing via the CSP - anyhow additional revenue streams for the CSP shall be made available as incentive/encouragement to develop a future-proof solution. A supplier led model would indicate more choice for the consumer regarding the functionalities of the hub but could make supplier switches more difficult.

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?

Yes. Innovative metering and communication solutions are still required for non-domestic areas to support specific businesses.

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?

Yes. Then he has business rationale for doing so and processes shall be as lean as possible - so no claims from supplier side to 3rd party. The supplier shall ensure CSP- and additional information and registration of these sites (in SEC).

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?

Yes - as connectivity could still work in case of outage (1 hour) and as CSP are serving geographics while suppliers serve customers. CHTS should contain a requirement for power backup (min 1hrs) in the hub.

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

No - each endpoint should include a outage reporting application. The detection of outages and spotting the exact location of the incident includes full coverage of outage reporting.

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.

Privacy requirements aim to keep as much personal information inside the consumers premise as possible. The hub should be able to adapt with flexible amount of demand registers. In addition it is desired to add local processing and virtualization of registers in the hub in order to be able to optimize the WAN traffic and minimize the privacy issues.

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?

The measurement function should be implemented in the meter and the hub can provide a dynamic parametering of the threshold provided to the meter. This can be implemented in the hub after deployment when changes in business cases might become effective.

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.

As this feature is especially sensitive - we propose a double layer security and authentication. The strong authentication of the order shall take place on the meter side while the provisioning service and business logic should be handled by the hub. That requires the provisioning of the DNOs on the hub and mechanisms that this functionality is not accessible for third parties.

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 to include this into SMETS 2 but there should be a further development of the demand response control functionalities. The application layer of the hub could facilitate the growing demand for load shedding and load control intelligence and flexibility. A strong authentication of the actors addressing these functionalities is needed. Mechanisms should generically be integrated in CHTS. The enabling of demand response as business between aggregators, consumers and DNOs will found the business case for adding the functionalities.

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.

----

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.

We Support Option 2 for remote pairing. Registering via internet (e.g. Via the devices serial number) reduces the complexity and cost for the device communication. Anyhow, the privacy of the consumer pairing the devices must be respected. Problem of Option 1 is cost and risk of operation errors and fraud (e.g. 10 digits is not very secure / more is a threat to consumer acceptance and usability).

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?

Pairing processes should be as standardized as possible in order to ensure open markets (supplier switches). This process needs to be designed taking strongest authentication mechanisms as basis which -via the application layer of the hub/server - needs to be upgradeable over lifetime. It might be necessary to define a role of a data access point manager in the SEC - a dedicated party that ensures the security and integrity of any pairing effected.

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

Using Option 2 and having a clear pairing process in place, any device fulfilling the communications requirements could be paired and the hub enables the long term transformation of a kw/h based business to a service-based business on the supplier side in a stable and interoperable architecture.

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

We like to emphasize the deployment of Near Field Communication - the hub could act as NFC reader provisioning the payment from a NFC ready phone, dongle or card. Selecting the NFC technology will leverage on the growing deployed based of NFC enabled phones and card (pre-paid, debit or credit ones).

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.

The issue may be different for Electricity and Gas; while the end-user or any service operator may be able to activate the electricity supply through the PPMID without major "safety (danger for humans)" and "security (security breach issue)" concerns it is different for gas installation which require a "professional" to put under gas pressure. In the first case, only precaution about potential direct interventions on Electricity home installation and unnecessary power on of appliances are of concern, in the second case, a real safety and direct danger may occur without on place the right service operator.

29. Do you agree with the proposal that the communication 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?

each hub should support min 4 electricity meters and 1 gas meter per premise: Microgeneration, Battery (in/out), Feed-in (traditional) - the above numbers are sufficient for smart meters but for use in home automation the Hub may allow to connect up to 30 - 40 radio devices. It is very important to include the microgeneration in the scope of SMETS, not only for metering but also for additional services that could be deployed through the hub (e.g. Virtual Power Plant management).

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.

Standalone parametering possibilities of the Hub and Smart Meters, pairing of CAD devices, diagnostic and repair functionalities, software upgrade possibilities but security will be of paramount.

It is clear that HHT would increase the productivity of maintenance team and ease the diagnostics in case of loss of WAN. In that case all the security will have to be managed off-line. It is perfectly possible and could be based on the same technological basis than local payment.

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.

The overall approach is interesting and should guaranty a good security level in a cost effective manner.

It is clear that the governance of security requirement should include governmental, industry and evaluation labs experts gathered in a technical committee. Even if in a first step this committee could be national, a pan-european approach and even an international one is desired. It will allow larger volumes for manufacturers leading to lower costs. ESMIG as smart metering industry group in Europe is currently working on an approach for affordable, adequate security certification methods.

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.

The approach is relevant to ensure development of new services and adapt security level to each of them.

Yes independent assurance procedures should be established including an independent security testing and certification. Common Criteria certification seems to be the approach, especially under the light of the new CC governance model presented at ICC 2012. A technical committee dealing with smart meters should be established and should produce a cPP for a common evaluation and certification base. This new CC approach has been set-up in order to be lightweight and cheaper than the previous one.

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.

On top of the security mechanism in product and solution, it would be required to ensure many secure elements to be produced in factories with right security certification; smart card industry scheme could be copied.

As the security state of the art evolve on fast pace, it is important to re-assess regularly the security of certified devices. The CC scheme has a overseeing process for this purpose. This process is lighthweigh and additional testing activities are trigered only if new significant attacks of threats have been detected by the labs responsible for the overseeing.

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?

yes. ESMIG is currently working on piloting adequate security certification approaches. The case which is close to smart metering is the certification scheme for Ponit of Sales terminals (credit card readers in shops/restaurants) - the similarities and cost could be analysed and partially applied.

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?

Sanctions include the ban for further deployments and financial penalties exceeding profit gained from not following the requirements.

In case of non voluntary non-compliance, depending of the security threat, a minimum time should be given to the supplier to solve the issue and if not successful the product should be excluded from the certified products.

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.

In principle yes but not in a position to give an idea of cost.

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.

Not only smart metering equipment. Interoperability between Wan/HAN and appliances is crucial (end2end). The SEC shall define the mode on how new applications/stakeholders/services should have discrimination free access to the hub (by paying CSP for establishing connectivity).

Products should comply with security certification, SEP and DLMS standards.

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?

DCC/CSP must certify applications against security scheme.

This will be the only viable way to ensure full interoperability and reduce risk of security threats.

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.

Specifications need to be drilled down one layer lower to the protocol layer. Also several use cases and complex environment should be created to ensure quality testing and full compliance.

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.

Business continuity and liability aspect must be considered. A clear handover of responsibility from CSP to Supplier and clear rules for guarantee and liability must be defined. Main question: who operates the PKI (key management system) when interoperability must be guaranteed and supplier switch is possible.

By offering to end-user relevant insight in energy consumption, statistic about peak and average consumption, simulation of usage, naturally the end-user would accommodate the energy consumption at the most favorable period. There are incentives for energy supplier, end-user and governments and possibilities to reduce energy usages.

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

----

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

We think, this is up to the consumer to support

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?

It should be flexible - those having a) regulated need or b) a valid end consumer allowance (service contract) should have access to the data needed. In order to keep the business integrity and the transparency, each of them should have its own credentials dedicated to desired functionality on the hub (in combination w/security).

DEDACTED: in any case it will favor new services to end-user and different actors in the ecosystem, generating services and revenues.

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

Agree

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?

Agree - but handover and liability must be easy and clearly defined in the SEC

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

The timing is realistic because industrial company will anticipate feasibility studies and early prototypes building.

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?

good approach in general but pressure and incentives should exist to encourage all the actors to move forward and take a minimum of risks.

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

After 12 months of successful deployment.

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

A well small sized standing sub-committee would be the best solution to ensure a competent team to tackle the different issues and strive for further enhancements.

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

Mix of Government, Industrial but also Academic (Universities/Public Labs) actors should contribute to further enhancements and next generation of products and architecture specifications.