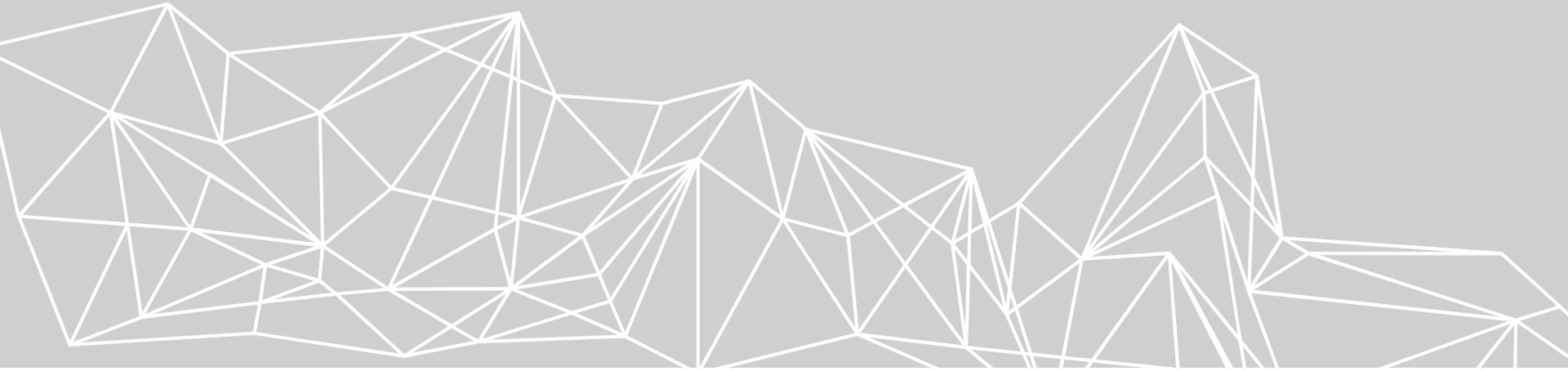


TOWARDS A FURTHER DEVELOPMENT OF VHPREADY RESULTS OF THE MEMBERS SURVEY



Dr. Armin Wolf, Fraunhofer FOKUS

HISTORY AND MOTIVATION

Spring 2015

- Definition of a working task in the SINTEG project „WindNODE“ in order to prepare a extension of VHPready to deal with power flexibility



Spring 2018

- Presentation of a conceptual classification of power flexibility and ICT-based approaches as a basis for an extension of VHPready

3 years passed:

- Is there still a need for such an extension of VHPready?
→ are there any other topics becoming more important?

→ Let's ask the members – let's perform an inquiry !





THE INQUIRY

One pager Questionnaire (D/E)

– 4 Questions

- 1 about the industrial sector of the respondent
- 1 about the importance of an extension of VHPready to use flexibility
- 1 about the participation in such an extension
- 1 about the importance of other extensions

→ Keeping the workload as small as possible!



Please add your business card
or enter your contact data. Thx.

QUESTIONS RELATING TO AN EXPANSION OF VHPREADY IN PARTICULAR TOWARDS THE USE OF FLEXIBILITY

Important note: The answers to these questions are evaluated within the context of the BMWi-funded SINTEG project "WindNODE" (funding code 03SINS14) and are used only within the project.

Which industry / group do you represent?

☐ Automation Technology ☐ Plant Operator ☐ Energy Marketer ☐ Equipment Manufacturer
☐ Municipal Utilities ☐ TSOs ☐ VPP Operators ☐ DSOs
☐ Other: _____

Within the Agora study on "Smart Market Design in German Distribution Grids"¹, the BNetzA position paper on "Flexibility in Power Systems"² as well as in the "Universal Smart Energy Framework" (USEF)³, electrical flexibility, i.e. the change of injection or withdrawal, is understood as an opportunity to provide services in the energy system, e.g. for the elimination of network bottlenecks.

In the multi-year SINTEG project "WindNODE", such an extension proposal for VHPready can be developed by Fraunhofer FOKUS in 2018 in order to exchange information on flexibility and to use it in a market, network, or system-compatible way.

How important do you consider this possibility of extending VHPready to use flexibility in the sense of a strategic development of VHPready?

☐ essential ☐ very important ☐ less important ☐ irrelevant

Would you be willing to participate in such an extension?
☐ yes ☐ yes, provided that _____ ☐ no

What further topics do you rate as relevant to the course of a strategic development of VHPready and with which level of importance?

Use of the CLS interface of BSI-compliant smart meter gateways:
☐ essential ☐ very important ☐ less important ☐ irrelevant

Transmission of plant status data as a basis e.g. for "predictive maintenance":
☐ essential ☐ very important ☐ less important ☐ irrelevant

Another topic: _____
☐ essential ☐ very important ☐ less important ☐ irrelevant

¹<https://www.agora-energieumde.de/de/themen/energie/Produkte/produkte/379/Smart-Market-Design-im-deutschen-Verteilungsnetz>
²https://www.bundesnetzagentur.de/DE/Sachgebiete/ElektrizitaetundGas/Unternehmen_Institutionen/Netzentwicklung/undm-Grid/Flexibilitaet/Flexibilitaet-node.html
³<https://www.uscf.energy/>

THE RESULTS

General Information

Participation

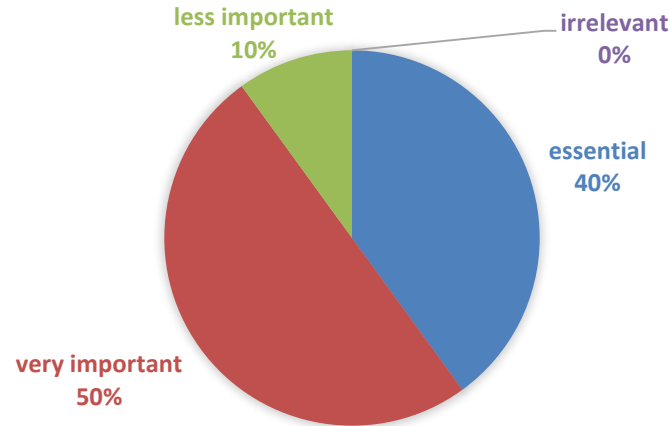
- feedback from 10 members (approx. 20 %)
- Fraunhofer – as the initiator – did not participate

Involved Industrial Sectors (multiple nominations included)

- Automation Technology: 4
- Energy Marketer (Virtual) Plant Operator: 2
- Equipment Manufacturer: 5
- TSO / DSO: 2
- Others: 3

THE RESULTS

How important do you consider this possibility of extending VHPready to use flexibility in the sense of a strategic development of VHPready?

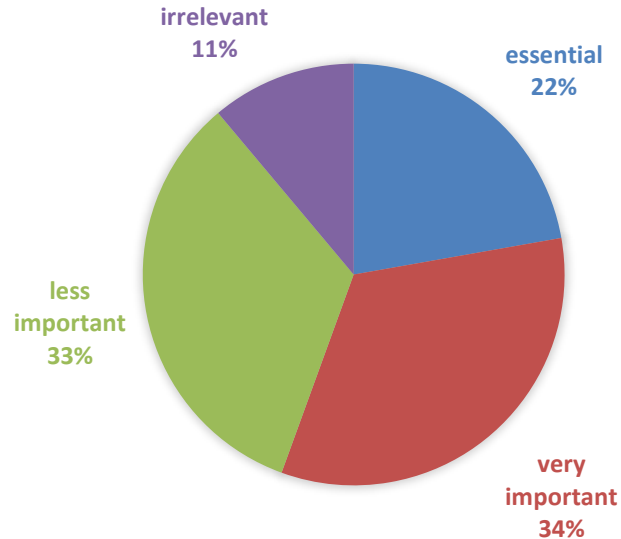


- 6 of 10 companies are willing to contribute to such an extension

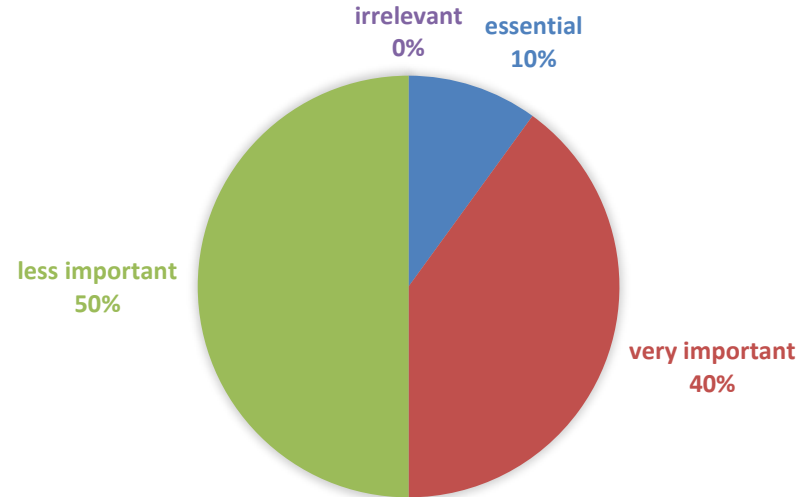
THE RESULTS

What further topics do you rate as relevant to the course of a strategic development of VHPready and with which level of importance?

USE OF THE CLS INTERFACE



TRANSMISSION OF PLANT STATUS DATA



THE RESULTS

Other Important Topics (individual options)

- Standardized interface of control centers for market communication under consideration of CEFenergy
- Integration/consideration of “virtual devices“ like residential building and districts
- Support of internationally valid regulations

SUMMARY

Strong vote for an extension of VHPready on power flexibility

→ Continuation of the work defined in the WindNODE task

CURRENT STATE OF WORK

- **Definition of „practical“ (business) use-cases**
 - The IEC 62559 use case method is suggested
- **Requirements analysis**
 - What information on power flexibility has to be exchanged?
 - By whom? When?, ...
 - What protocols and principles are suggested?
 - JSON via HTTP(S) or IEC 61850 – who has experience?
 - Pull / Push – Subscribe / Inform
 - What information exchange templates are necessary (N:1; N:M) ?
 - User authorization / registration necessary?

→ **Your expertise and input is strongly requested!**

CONTACT

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