

# INTEGRATION OF DEMAND SIDE MANAGEMENT, ENERGY EFFICIENCY, DISTRIBUTED GENERATION AND RENEWABLE ENERGY SOURCE

Content of the work, version 2

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Teknologiasta liiketoimintaa

# Subtasks

Four subtasks are planned

- q Subtask 1: Information collection
- q Subtask 2: Analysis of the information collected and preliminary conclusions (state of the art)
- q Subtask 3: Feedback from the stakeholders: Workshop
- q Subtask 4: Final conclusions and the detailed definition of the further work

## Subtask 1: Information collection

1. Characteristics and state of the art of different types of (intermittent) distributed generation; potential, experiences and plans at different countries; problems caused by them in physical electricity systems and at electricity market. Information of the DG technologies is collected mainly by OA and country information and experiences by country experts
2. Characteristics and state of the art of different energy storage technologies. Energy storages include applications at customer, network and generation level. Information is mainly collected by OA and partly by country experts
3. Characteristics, potential and utilisation of Demand Response and Energy Efficiency (IEA DSM Tasks and others)
4. Experiences from the integration (research and pilots, actual experiences), Information is mainly collected by OA from the public sources (EU reseach etc) assisted by country experts
5. Business models and market based solutions for the utilisation of DER, OA and country experts
6. Barriers to the utilisation of DER, OA and country experts

OA prepares a list of projects/public sources on the available information and prepares a draft of questionnaire to country experts. This is discussed at the first expert meeting and agreed how country experts proceed with the information collection.



## Subtask 2: Analysis of the information collected and preliminary conclusions (state of the art)

On the basis of the collected information a draft synthesis report and preliminary conclusions are written down including

1. Status and technical and economical characteristics of DG, energy storage and demand response including the system effects of intermittent type DG
2. State of the art of integration of DER at customer, network, system and market level; pilot and research projects and actual applications
3. Preliminary conclusions on improvements needed to enhance the integration
4. Preparation of the workshop

The draft analysis and preparation of the workshop is done by OA with the assistance of country experts

## Subtask 3: Feedback from the stakeholders: Workshop

An open workshop is arranged with stakeholders with the objectives

1. To collect additional information from the invited speakers
2. To get feedback on the preliminary conclusions
3. To get inputs for the future work

OA produces the workshop proceeding with the conclusions

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## Subtask 4: Final conclusions and the detailed definition of the further work

As a result of the previous subtask the final products of the scope study are produced including

1. The updated synthesis report with conclusions
2. Detailed work plan for the additional work

The first product is mainly produced by OA with the assistance of country experts. The workplan is produced by the expert group with OA

## Expected results of the first stage

The main deliverables of the first stage are

- q State-of-the art of the integrated concept of DER and problems related to it
- q Feedback from the stakeholders at the workshop and workshop proceedings
- q Synthesis report
- q Definitions of the detailed further work.

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## Next steps

- The final version of the work plan (end of June)
- the official legal text of the New Annex will be produced (target end of June)
- Confirmation letters from the participating countries in July and
- Start of work in August