

Final report

1. Project details

Project title	Fortsat dansk IEA-PVPS deltagelse 2020-2023
File no.	64019-0512
Name of the funding scheme	EUDP
Project managing company / institution	Kenergy ApS
CVR number (central business register)	39326655
Project partners	FK Sol ApS
Submission date	18 April 2024

2. Summary

English version

The main objective of the project Continued Danish Participation in IEA-PVPS (IEA Photovoltaic Power Systems Program) is to disseminate the newest international knowledge to the Danish solar industry and research institutions. The project has been participating in the IEA-PVPS Executive Committee (ExCo), Task 1 and Task 14. Task 1 serves as the think tank of the PVPS programme, by identifying and clarifying the evolutions of the PV market, identifying issues and advance knowledge. And disseminate the newest information about research market and industry development, analyses support and R&D policies. Task 14 has the main goal to promote the use of grid-connected PV as an important source in electric power systems at the higher penetration levels that may require additional efforts to integrate dispersed generators. The aim of these efforts is to reduce the technical barriers to achieving high penetration levels of distributed renewable systems. The project has been running in the period 2020 - 2023.

Danish version

Hovedformålet med projektet Continued Danish Participation in IEA-PVPS (IEA Photovoltaic Power Systems Program) er at formidle den nyeste internationale viden til den danske solindustri og forskningsinstitutioner. Projektet har deltaget i IEA-PVPS Executive Committee (ExCo), Task 1 og Task 14. Task 1 fungerer som tænketanken for PVPS-programmet ved at identificere og udrede udviklingen på PV-markedet, identificere problemer og fremme viden. Task 1 formidler den nyeste information om forsknings, markeds- og industriudvikling, analyserer støtte samt F&U-politikker. Task 14 har som hovedmål at fremme brugen af nettilsluttede solcelleanlæg som en vigtig kilde i elnettet. Formålet er at reducere de tekniske barrierer for at opnå høje udbredelsesniveauer for distribuerede vedvarende systemer. Projektet har kørt i perioden 2020 - 2023.

3. Project objectives

The project Continued Danish Participation in IEA-PVPS (IEA Photovoltaic Power Systems Program), has the objective to enhance the international collaborative efforts which facilitate the role of photovoltaic solar energy as a cornerstone in the transition to sustainable energy systems. The IEA-PVPS collaboration includes 32 members representing a wide circle of countries from all continents and organizations such as the EU, SEIA and SEPA. The collaboration has set up several working groups (Tasks), which, through a network of experts, uncover current conditions in connection with the development and implementation of the solar cell technology.

The project participants have been participating in the following tasks: ExCo, the management of the IEA-PVPS collaboration and Task 1, which focuses on strategy development and dissemination. In addition, the project includes participation in Task 14, which looks at the interaction between photovoltaics and the electricity grid. Through the project participation, it was ensured that the latest and international knowledge is available to the Danish stakeholders within the industry and research institutions.

In addition, cooperation with the other Danish participants in Task 13, 15, 16 has been ensured. Results from the collaboration are disseminated widely to forums with an interest in solar energy and green conversion.

4. Project implementation

The project has been running from 2020 until 2023 and have been following the project plan. The deliveries from the Danish project partners into the IEA-PVPS programme have been as planned with contribution to the obligatory Yearly Report, Trends Reports, Snapshot Report and different Project Reports.

The project participants have held yearly meetings with the other Danish IEA-PVPS representatives to secure some cross cutting information between the different Task. Yearly meetings have also been held with EUDP.

The project participants have widely informed the Danish stakeholders about the work and results from the project through different medias.

Since the project have been running during the Covid-19 period, most of the planned physical IEA-PVPS project meetings have been organised as online and hybrid meetings which now is used even more then before the pandemic. The project budget reflects this situation with some budget left for travelling.

5. Project results

The main project results are disseminated through the IEA-PVPS website where all reports from each Task can be found. Beside the physical reports the international dissemination has also been through participation in conferences and exhibitions, workshops, webinars and articles for magazines. The national dissemination has among others been conducted via the website of Dansk Solcelleforening, LinkedIn, conferences and webinars and invited events.

The overall goal has been to disseminate information and knowledge from the IEA-PVPS program to relevant stakeholders. (politicians, energy planners, utilities, developers, installers, municipalities, universities, companies etc.).

The planned milestones and deliverables listed below have been achieved.

WP1: ExCo

- 1.1 Participation in Half-Yearly Meetings.
- 1.2 ExCo strategy work and review.

WP2: Task 1

- 2.1 Participation in Half-Yearly Meetings.
- 2.2 Participating in international dissemination events.
- 2.3 National project dissemination.

WP3: Task 14

- 3.1 Participation in Half-Yearly Meetings.
- 3.2 Project writing and commenting.

Milestones

- M1: IEA-PVPS Annual Report publication
- M2: Trends in PV Power Systems publication
- M3: National yearly IEA-PVPS workshop

Published annual reports in the project period



Published Trends reports in the project period



5. Utilisation of project results

The utilisation of the results in this project is directly linked to the knowledge gaining of sharing in the IEA-PVPS community. The Danish stakeholders can indirectly use the project results in their planning and execution of new products and projects which can reduce the use fossil fuel and accelerate the green transaction.

The Danish stakeholders have access to an international community where knowledge can be obtained and benefit in develop, implement and plan for reaching the 100% renewable energy goal in Denmark. Research institutions as well as the solar industry is directly involved the IEA-PVPS work and benefits from this in the planning of future research, products and projects which supports the green transition in Denmark.

6. Project conclusion and perspective

- *The project has fulfilled the objective and the overall project plan. Some changes in meeting attendance have been affected by the Covid-19 pandemic, but the IEA-PVPS community has implemented more online meetings as well as hybrid meetings.*
- *The milestones and progress in the project have been reached and are fulfilled.*
- *During the project period we have introduced yearly status meetings among the Danish IEA-PVPS participants which have made the group more uniform and aligned against the IEA-PVPS community. Yearly meetings have also been held with EUDP.*
- *During the period Denmark has been represented at all ExCo meetings physical or online.*
 - 12.11. – 13.11.2020
 - 16.04. – 21.04.2020
 - 22.06 – 23.06.2021
 - 08.11 – 11.11.2021
 - 20.04 – 22.04.2022
 - 30.11 – 02.12.2022

- *A new 2-year term for participation in the IEA-PVPS ExCo and Task 1 has been approved by EUDP, so the knowledge gathering, and exchange can be continued for the benefit of the Danish Stakeholders.*

7. Appendices

- *IEA-PVPS*
 - *<https://iea-pvps.org/>:*
- *Task 1*
 - *<https://iea-pvps.org/research-tasks/strategic-pv-analysis-outreach/>*
- *Task 14*
 - *<https://iea-pvps.org/research-tasks/solar-pv-in-100-res-power-system/>Add link to other relevant documents, publications, home pages etc.*