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2014

DNICast Newsletter – 1st Issue

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ABOUT DNICAST

Concentrating solar technologies (CST) have proven to be very efficient sources of clean power for the electrical grid. CST include thermodynamic machines, such as the concentrating solar power (CSP: parabolic troughs, solar towers, Fresnel collectors, parabolic dishes...), or concentrating photovoltaics (CPV). CST plant operation requires reliable forecasts of the incident irradiance for two main reasons:

- First, to allow for an optimal efficiency of the power plants.
- Second, the electricity production can be optimally connected to the grid.

DNICast focuses on the first reason. Currently, forecasts are made by several techniques, which have their own merits and drawbacks. The uncertainty in the forecast of the Direct Normal Irradiance (DNI) is still too large and must be reduced.

OBJECTIVES

The main objectives of this 4-year project (October 2013-September 2017) are:

- To establish a portfolio of innovative methods for the nowcast of DNI and to combine these methods;
- To validate the nowcasts and to assess the influence of improvement in DNI nowcasting on nowcasting of CST and CPV plant output;
- To involve the potential users of nowcasting methods;
- To assure proper dissemination and exploitation of project activities and results as well as engage the DNICAST wider community in a constant interaction and consultation mode.

END-USER WORKSHOP

The DNICAST 1st End-User Workshop on “Energy Sector End-user Requirements for Direct Normal Irradiance Nowcasting and Forecasting” took place on May 7th, 2014 along with GENERA 2014 Conference in Madrid, Spain. The workshop gathered around 40 participants, including the project partners, advisory board members and other stakeholders and potential end-users. The objectives of the workshop were:

- To collect expression of needs (requirements) for a DNI nowcasting system, to document current practices for forecasting DNI and to interface with the WMO Sand and Dust Storm Warning Advisory and assessment System (SDSWAS).
- To undertake consultation on the DNI requirements, including a follow-up on the WP 2.1 Deliverable 2.1 “Technical Report on the functional requirements for the nowcasting system.

The workshop was split into two main sessions: CST requirements and the impact of clouds on aerosols on DNI and consultations with the Advisory Board that it met for the first time under the framework of the DNICAST project.
MEETINGS

Kick-Off Meeting

The Kick-Off Meeting (KoM) took place on October 22nd - 23rd, 2013 at the European Commission. The first day was devoted to the formal presentations by work package leaders with the presence of Mr. Piero De Bonis, EC Project Officer. Presentations focused on work plan and actions, relations with other work packages. The second day was devoted to detailed presentations of each work package discussing all the technical aspects of the project.

UP-Coming Meetings

Project Meeting:

Date: 10th – 11th July, 2014
Venue: OME, 32 bis, Boulevard Haussmann, 75009 Paris

DNICAST IN THE NEWS


Piepsolar: “DNI Cast help to improve the accuracy of the DNI irradiation data.”


CONSORTIUM

OME  Observatoire Méditerranéen de l’Energie (France)

CENER  Centro Nacional de Energías Renovables, Fundación CENER-CIEMAT (Spain)

UNIPATRAS  University of Patras (Greece)

METEOTEST  Genossenschaft Meteotest (Switzerland)

ARMINES  Association pour la recherche et le développement des méthodes et processus Industriels (France)

RIUUK  Rheinisches Institut für Umweltforschung an der Universität zu Köln E.V. (Germany)

SMHI  Sveriges Meteorologiska och Hydrologiska Institut (Sweden)

DLR  Deutsches Zentrum für Luft- und Raumfahrt e.V. (Germany)

TROPOS  Leibniz Institut für Troposphärensforschung (Germany)

CIEMAT  Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas (Spain)

METEOSWISS  Eidgenössisches Departement Des Innern (Switzerland)

CYI  The Cyprus Institute Limited (Cyprus)

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