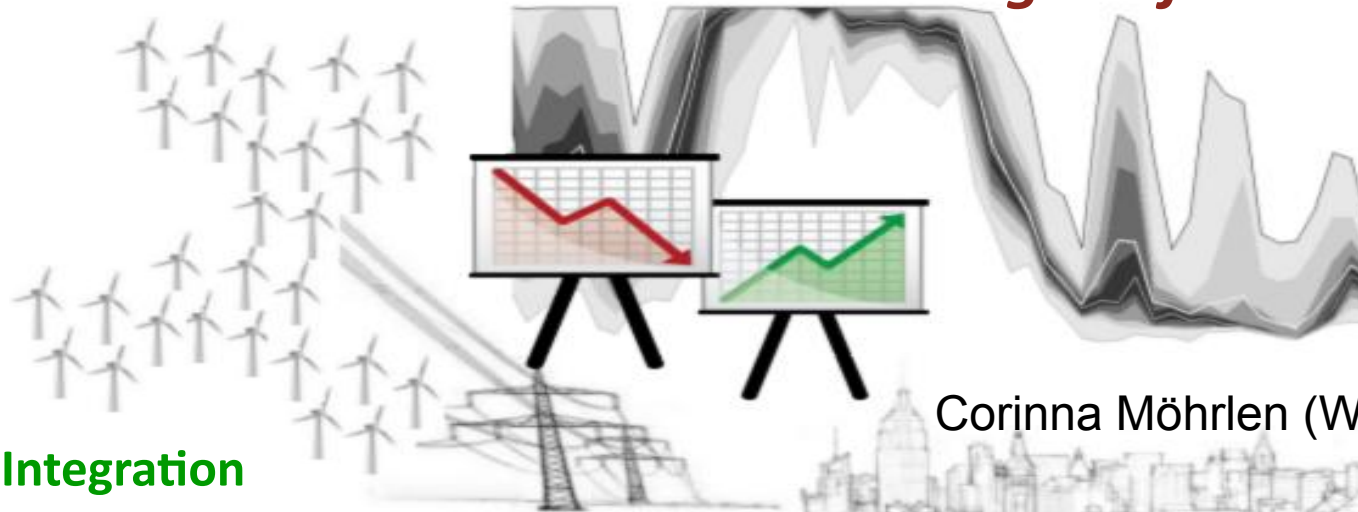


IEA Wind Task 51

“Forecasting for the Weather-driven Energy System” Workshop

*IEC Standard for Renewable Energy Forecasting:
Introduction to the Current Working Draft 63531*



Wind & Solar Integration
Workshop

Berlin, Germany
8th October 2025

Corinna Möhrle (WEPROG)

Gregor Giebel, Irene Schicker, Jethro Browell
Mouhamet Diallo, Stefan Wilbert, Zheng Wang (IEC)



International
Electrotechnical
Commission

Brief History of Collaboration & Liaison IEC ← → IEA



iea wind

TC8/SC 8A

Grid Integration of
Renewable Energy
Generation,

Working Group 2:
Renewable energy
power prediction

- **Technical Report TR63043** was released in 2020 by
<https://webstore.iec.ch/publication/26529> - Link to [IEC SC8A WG2](#)
- **IEA Wind Recommended Practice** for the Implementation of
Renewable Energy Forecasting Solutions (Nov. 2022)
[Link](#) to OpenAccess book
- **New Work Item TS 63165**
Specification for evaluation of renewable energy power
forecasting results

IEA Wind
Task 36
Wind Energy
Forecasting

IEA Wind
Task 51
Forecasting
for the
weather
driven energy
system

IEC TR 63043 ED1: Renewable Energy Power Forecasting Technology

2020

First collaborative work Sub-Committee
8A Grid Integration of Renewable
Energy Generation, Working Group 2
Renewable energy power prediction
**based on a collaboration with IEA
Wind Task 51.**

<https://webstore.iec.ch/publication/26529>

Link to [IEC SC8A WG2](#)



IEC Technical Report 63043

IEC TR 63043:2020

Renewable energy power forecasting technology

IEC TR 63043:2020(E), which is a technical report, describes common practices and state of the art for renewable energy power forecasting technology, including general data demands, renewable energy power forecasting methods and forecasting error evaluation. For the purposes of this document, renewable energy refers to variable

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BASE PUBLICATION

Language	English
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Format	Electronic	▼
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User ⓘ	1	▼
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2022

Elsevier OpenAccess Book

ISBN: 978-0-443-18681-3

PUB DATE: November 2022

FORMAT: Paperback

Editors: Corinna Möhrle, John W. Zack, and Gregor Giebel

<https://www.elsevier.com/books/iea-wind-recommended-practice-for-the-implementation-of-renewable-energy-forecasting-solutions/mohrlen/978-0-443-18681-3>

Free download:

<https://www.sciencedirect.com/book/9780443186813/iea-wind-recommended-practice-for-the-implementation-of-renewable-energy-forecasting-solutions>



IEA Wind Recommended Practice for the Implementation of Renewable Energy Forecasting Solutions

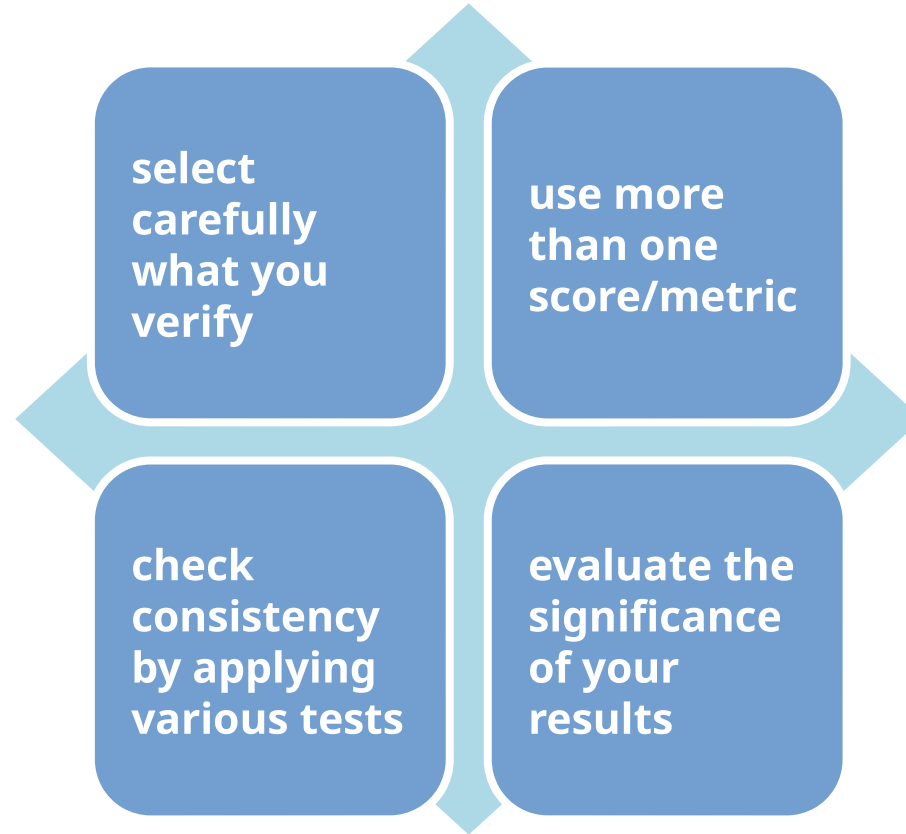


Corinna Möhrle
John W. Zack
Gregor Giebel

Lessons Learned in IEA Wind Task 36 & 51



**Forecast Evaluation is
subjective:
meaningful evaluation require
applying the 4 corner stones**



Collaboration & Liaison proposal to work with IEC SC8A WG2 on standard for renewable energy forecast evaluation

Kick-off Meeting in Copenhagen in **June 2023**

Purpose: Quality Assurance

Technical specification aspects:

- Definitions of renewable energy generation forecasting
- Use cases and case specific requirements.
- Specification, collection, processing methods, and quality control for evaluation data.
- Evaluation framework and process.
- Evaluation methods
- Normative requirements and examples for evaluation result documents

Stakeholder: prediction service providers, wind farm or photovoltaic power plant owners, TSO, prediction technology R&D, stakeholders or individuals.





International
Electrotechnical
Commission

Collaboration/Liaison Proposal to work with IEC SC8A WG2 on standard for renewable energy forecast evaluation



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[Home](#) / [Standards development](#) / [Technical committees and subcommittees](#) / [TC 8](#) / [SC 8A](#) / [WG 2](#)

SC 8A Grid Integration of Renewable Energy Generation

[Scope](#) [Structure](#) [Projects / Publications](#) [Documents](#) [Votes](#) [Meetings](#) [Collaboration Platform](#)

Working Groups > [WG 2](#)

WG 2 Convenor & Members

Convenor	National Committee
Mr Shuanglei Feng	CN

SC 8A Officers

Chair	Mr Frank Martin (DK) Term of office : 2029-01
Vice-Chair	Mr Bernhard Ernst (DE) Term of office : 2026-01
Secretary	Mr Yongning Chi (CN)
Assistant Secretary	Mr Zhankui ZHANG (CN)

Title & Task

WG 2

Renewable energy power prediction

To develop a Technical Report addressing best practices around RE power prediction

https://www.iec.ch/ords/f?p=103:14:216163584028094:::FSP_ORG_ID,FSP_LANG_ID:13189,25

Status of WG2

2016-2-5:

Set up Working Group (WG2): Renewable Energy Power Prediction

Task of WG2:

To develop a series of technical standards addressing best practices around RE power prediction.

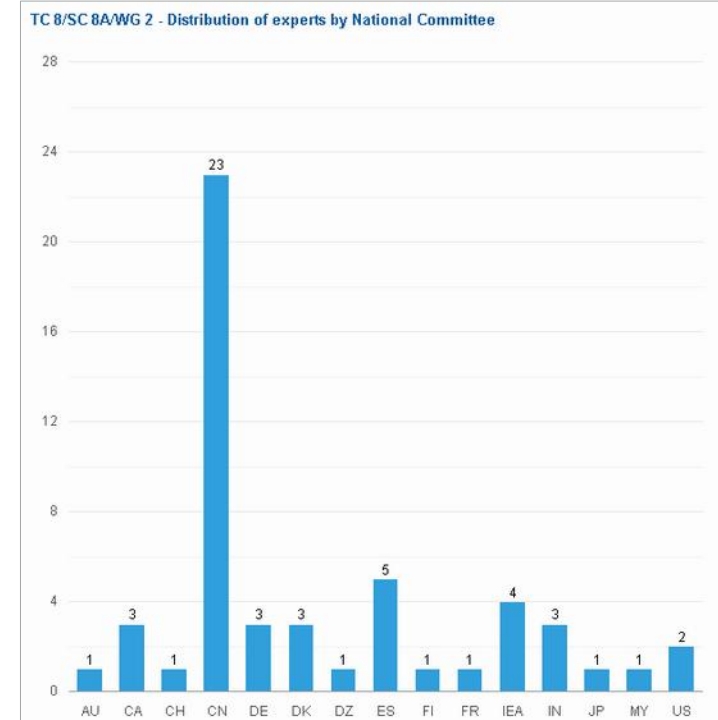
TC 8/SC 8A/WG 2 - Renewable energy power prediction

List All Experts by NC

Function	Last Name	First Name	NC	E-mail address
Member	Batich	Alex	AU	
Member	Balaraman	Kannan	IN	
Member	Balaraman	K	IN	
Member	BELLINGUER	Kévin	FR	
Member	Bucher	Christof	CH	
Member	Che Mud	Sansubari	MY	
Member	Cheng	Ming	CN	
Member	DENG	Yiwei	CN	
Member	Ernst	Bernhard	DE	
Member	Fan	Gaofeng	CN	
Convenor	Feng	Shuangfei	CN	
Member	Garg	Ajay	CA	
Member	Giebel	Gregor	DK	
Member	GUERFI	Nabila	DZ	
Member	Hou	Yunhe	CN	
Member	Kishan	Jay	IN	
Member	Kishan	Jay	IN	
Member	Lañez Arscana	Ignacio	ES	
Member	Li	Li	CN	
Member	Liang	Zhifeng	CN	
Member	Liu	Jiaping	CN	
Member	MacDowell	Jason	US	
Member	Maric	Tonislav	DK	
Member	Martin	Frank	DK	
Member	Martinez Lavín	Miguel	ES	
Member	Martinez Vellido	Nekane	ES	
Member	Meja	Juan-Carlos	DE	
Member	NANAHARA	Toshiya	JP	
Member	Pekkonen	Eero	FI	
Member	Peng	Xiaosheng	CN	
Member	Rubin Fernández	Santiago	ES	
Member	Salas Merino	Vicente	ES	

53 experts from 15
countries

5 IEA Experts



Liaison

- A-Liaison means we can be involved in standardisation work with that SC
- IEA confirmed that it applies to TCPs in 2025
- Nominated IEA experts:
Gregor Giebel
Corinna Möhrle
Irene Schicker
Jethro Browell
Mouhamet Diallo
Stefan Wilbert

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TC 8 System aspects of electrical energy supply

[Scope](#)
[Structure](#)
[Projects / Publications](#)
[Documents](#)
[Votes](#)
[Meetings](#)
[Collaboration Platform](#)

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TC 8 Liaisons

Committee	Description	Incoming liaison representative(s)	Outgoing liaison representative(s)
Internal IEC Liaison			
TC 1	Terminology	Mr Gunnar KAESTLE	Mr Ajay Garg
TC 2	Rotating machinery	Mr Guenter Krainz	Mr Liangzhong Yao
SC 8A	Grid Integration of Renewable Energy Generation		Mr Christian Noce Mr Hervé ROCHERFAU
Liaison A			
CIRED	International Conference on Electricity Distribution	Mr Emmanuel De Jaeger	Mr Emmanuel De Jaeger
EURELECTRIC	International Union of Producers and Distributors of Electrical Energy		Mr Hervé ROCHEREAU
IEA	International Energy Agency	Ms Rena Kuwahata	

- SC 8A

Grid Integration of Renewable Energy Generation

Scope

Structure

Projects / Publications

Documents

Votes

Meetings

Collaboration Platform

Work programme

>

Project: IEC TS 63531 ED1

Detail

Committee	Subgroups	Project Leader	Current Status	Frst Pub Date	Stability Date
SC 8A	WG 2	Mr Shuanglei Feng	ACD	2026-12	

History

Stage	Document	Downloads	Online	Voting Result	Decision Date	Target Date
prePNW					2023-07-13	
PNW	8A/127/NP	113 kB		APPROVED	2023-07-14	
PRVN					2023-10-06	2023-10
ACD	8A/143/RVN	38 kB 227 kB			2023-10-13	2024-12
CD						2025-06

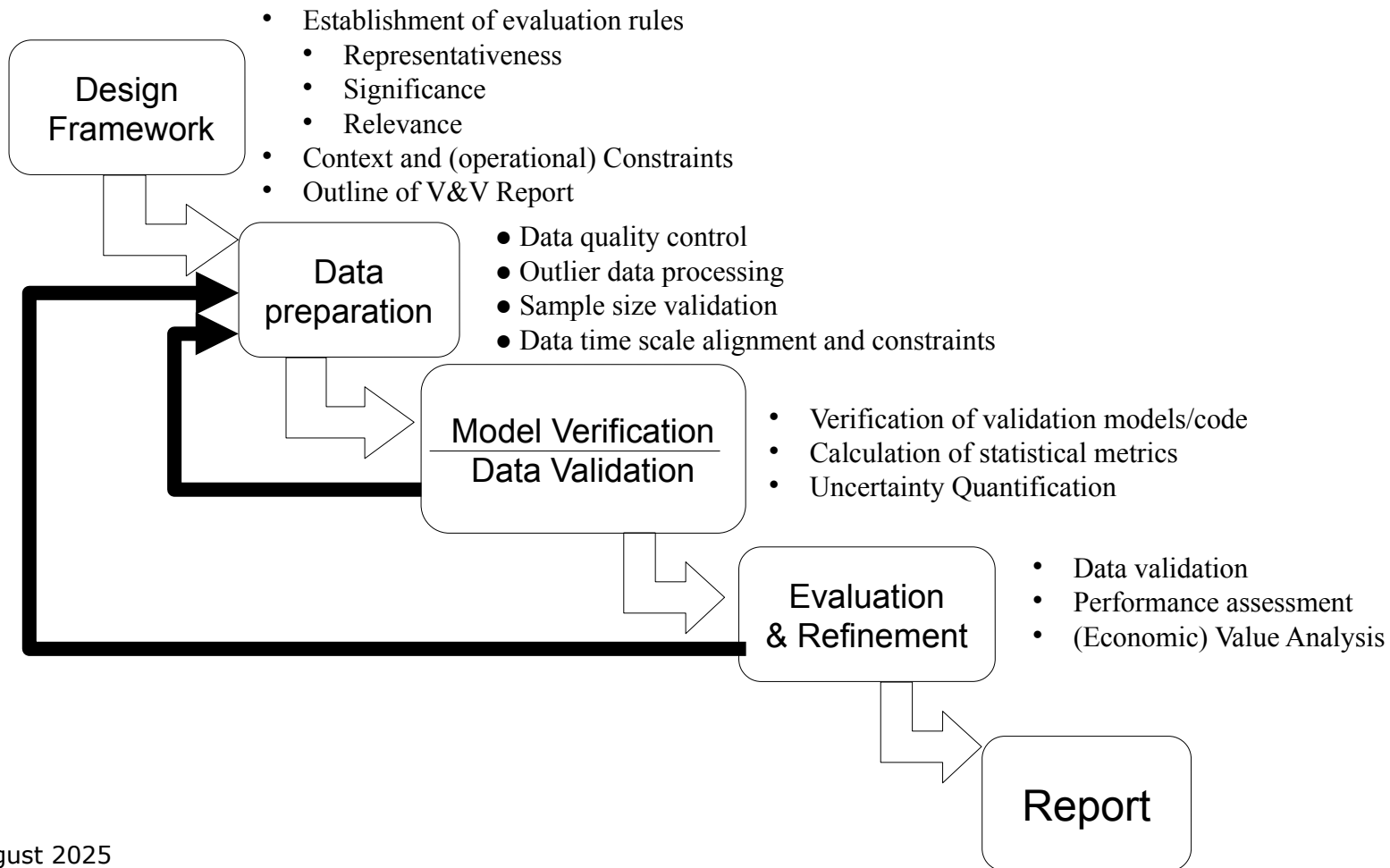
1.Scope

- This document of IEC TS 63531 gives guidelines on the evaluation of renewable energy power forecasted results, including framework, data preparation, data validity verification and evaluation methodology etc.
- This document only includes the evaluation of power forecasted results. It does not cover how to forecast renewable energy power, as well as the technical specifications that shall be met in renewable energy power forecasting.
- This document is applicable to renewable energy power forecasting service providers, renewable energy power forecasting results users, and technical research institutions of renewable energy power forecasting techniques, etc. It can be used to support forecasting service providers and research institutions to identify the problems existing in renewable energy power forecasting techniques, thus optimizing the forecasting techniques and improving the forecasting accuracy; support forecasting users to have an in-depth understanding of the error characteristics of renewable energy power forecasted results, thus optimally purchasing the forecasting services and properly using the forecasting results.
- Renewable energy generation in this document mainly refers to wind energy generation, photovoltaic generation, or a combination of the two.

2. Normative references

- IEC 61400-25 (all parts), Communications for monitoring and control of wind power plants
- IEC TS 61724-3:2016 Photovoltaic system performance - Part 3: Energy evaluation method
- IEC 61400-26-1 :2019 Wind energy generation systems - Part 26-1: Availability for wind energy generation systems
- IEC TR 63043: 2020, Renewable energy power forecasting technology
- IEC 61724-1:2021, Photovoltaic system performance - Part 1: Monitoring
- IEC 62934: 2021, Grid integration of renewable generation – Terms and definitions
- IEC 6400-50-1:2022, Wind measurement - Application of meteorological mast, nacelle and spinner mounted instruments
- IEA-PVPS 16-6:2024 Best Practices Handbook for the Collection and Use of Solar Resource Data for Solar Energy Applications: Fourth Edition
- IEA Wind 978-0-443-18681-3:2022 Recommended Practice for the Implementation of Renewable Energy Forecasting Solutions

IEC TS 63531 – architecture



Summary

IEA Wind Task 51 "Forecasting for the Weather Driven Energy System" is the largest global discussion group for forecasting

Wrote a Recommended Practice for the Implementation of Renewable Energy Forecasting Solutions

- IEC SC8A WG2 "Renewable Energy Power Forecasting" is a standardisation group for renewables forecasting
- Wrote a Technical Report "Renewable Energy Power Forecasting Technology" with strong involvement from IEA Experts
- Now works on a standard on error evaluation based on IEA Recommended Practice



Task 51 – “Forecasting for the weather-driven Energy System”

iea-wind.org/task51

Get in touch with us...

Operating Agent & Task Managers:

presenting

Gregor Giebel

Caroline Draxl

Roskilde, Denmark

Golden (CO), USA

grgi@dtu.dk

caroline.draxl@epri.com

Corinna Möhrle

Assens, Denmark

com@weprog.com

The IEA Wind TCP agreement, also known as the Implementing Agreement for Co-operation in the Research, Development, and Deployment of Wind Energy Systems, functions within a framework created by the International Energy Agency (IEA). Views, findings, and publications of IEA Wind do not necessarily represent the views or policies of the IEA Secretariat or of all its individual member countries.

