

Probabilistic energy forecasting: Global Energy Forecasting Competition 2014 and beyond - DTU Orbit (08/11/2017)

Probabilistic energy forecasting: Global Energy Forecasting Competition 2014 and beyond

The energy industry has been going through a significant modernization process over the last decade. Its infrastructure is being upgraded rapidly. The supply, demand and prices are becoming more volatile and less predictable than ever before. Even its business model is being challenged fundamentally. In this competitive and dynamic environment, many decision-making processes rely on probabilistic forecasts to quantify the uncertain future. Although most of the papers in the energy forecasting literature focus on point or singlevalued forecasts, the research interest in probabilistic energy forecasting research has taken off rapidly in recent years. In this paper, we summarize the recent research progress on probabilistic energy forecasting. A major portion of the paper is devoted to introducing the Global Energy Forecasting Competition 2014 (GEFCom2014), a probabilistic energy forecasting competition with four tracks on load, price, wind and solar forecasting, which attracted 581 participants from 61 countries. We conclude the paper with 12 predictions for the next decade of energy forecasting.

General information

State: Published

Organisations: Department of Applied Mathematics and Computer Science , Department of Electrical Engineering, Center for Electric Power and Energy, Electricity markets and energy analytics, World Energy & Meteorology Council, Monash University, University of Calgary, University of North Carolina

Authors: Hong, T. (Ekstern), Pinson, P. (Intern), Fan, S. (Ekstern), Zareipour, H. (Ekstern), Troccoli, A. (Ekstern), Hyndman, R. J. (Ekstern)

Pages: 896-913

Publication date: 2016

Main Research Area: Technical/natural sciences

Publication information

Journal: International Journal of Forecasting

Volume: 32

Issue number: 3

ISSN (Print): 0169-2070

Ratings:

BFI (2017): BFI-level 2

Web of Science (2017): Indexed Yes

BFI (2016): BFI-level 2

Scopus rating (2016): SJR 1.685 SNIP 2.21 CiteScore 2.45

Web of Science (2016): Indexed yes

BFI (2015): BFI-level 2

Scopus rating (2015): SJR 1.232 SNIP 1.84 CiteScore 1.89

BFI (2014): BFI-level 2

Scopus rating (2014): SJR 1.146 SNIP 2.182 CiteScore 2.08

Web of Science (2014): Indexed yes

BFI (2013): BFI-level 2

Scopus rating (2013): SJR 1.509 SNIP 1.623 CiteScore 1.59

ISI indexed (2013): ISI indexed yes

BFI (2012): BFI-level 2

Scopus rating (2012): SJR 1.278 SNIP 1.772 CiteScore 1.67

ISI indexed (2012): ISI indexed yes

BFI (2011): BFI-level 2

Scopus rating (2011): SJR 1.436 SNIP 1.711 CiteScore 1.92

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 2

Scopus rating (2010): SJR 1.038 SNIP 1.52

BFI (2009): BFI-level 2

Scopus rating (2009): SJR 0.833 SNIP 2.33

BFI (2008): BFI-level 2

Scopus rating (2008): SJR 1.001 SNIP 1.67

Scopus rating (2007): SJR 1.098 SNIP 1.995

Scopus rating (2006): SJR 1.073 SNIP 1.428

Scopus rating (2005): SJR 1.105 SNIP 1.356

Scopus rating (2004): SJR 0.613 SNIP 1.276

Scopus rating (2003): SJR 0.588 SNIP 1.69

Scopus rating (2002): SJR 0.456 SNIP 1.042

Scopus rating (2001): SJR 0.621 SNIP 1.26

Scopus rating (2000): SJR 0.749 SNIP 1.218

Scopus rating (1999): SJR 0.46 SNIP 0.883

Original language: English

Electric load forecasting, Electricity price forecasting, Wind power forecasting, Solar power forecasting, Probabilistic forecasting, Forecasting competition

DOIs:

10.1016/j.ijforecast.2016.02.001

Source: PublicationPreSubmission

Source-ID: 122661483

Publication: Research - peer-review › Journal article – Annual report year: 2016