References

[1] Sungrow. *Sungrow SG250HX Power Hour*, 2020. Available at: https://16iwyl195vvfgoqu3136p2ly-wpengine.netdna-ssl.com/wp-content/uploads/2020/04/Sungrow-Spotlight_Presentation_SG250HX.pdf (Accessed: 31.03.2021).

[2] H. Wirth. *Recent Facts about Photovoltaics in Germany (Version of June 10, 2020)*. Fraunhofer Institute for Solar Energy Systems ISE, Freiburg, Germany, 2020.

[3] IRENA. *Global Renewables Outlook: Energy transformation 2050*. International Renewable Energy Agency, Abu Dhabi, 2020.

[4] IEA PVPS. *Trends in Photovoltaic Applications 2020*. International Energy Agency Photovoltaic Power Systems Programme, 2020.

[5] Energimyndigheten. *Statistikdatabas: Nätanslutna solcellsanläggningar*, 2021. Available at: https://pxexternal.energimyndigheten.se/pxweb/sv/N%c3%a4tanslutna%20solcellsanl%c3%a4ggningar/?rxid=5e71cfb4-134c-4f1d-8fc5-15e530dd975c (Accessed: 01.04.2021).

[6] IEA PVPS. *National Survey Report of PV Power Applications in Sweden 2019*. International Energy Agency Photovoltaic Power Systems Programme, 2020.

[7] IRENA. *Future of solar photovoltaics: Deployment, investment, technology, grid integration and socio-economic aspects*. International Renewable Energy Agency, Abu Dhabi, 2019.

[8] C. Ahlrot. *Tekniska villkor för anslutning av kunder i regionnät samt till 20/10 kV-fördelningsstationer*. E.ON Energidistribution AB, 2020.

[9] A. Nordling. *Sveriges framtida elnät- En delrapport*. Kungl. Ingenjörsakademien, Stockholm, 2016.

[10] Svenska Kraftnät. *Om elmarknaden*, 2021. Available at: https://www.svk.se/om-kraftsystemet/om-elmarknaden/ (Accessed: 24.03.2021).

[11] E.ON Energidistribution. *Elnät*, 2020. Available at: https://www.eon.se/om-e-on/verksamhetsomraden/elnaet (Accessed: 01.02.2021).

[12] Konsumenternas Energimarknadsbyrå. *Elnätet*, 2020. Available at: https://www.energimarknadsbyran.se/el/elmarknaden/elnatet/elens-vag/ (Accessed: 01.02.2021).

[13] L. Söder. *Statisk Analys av Elsystem.* KTH Royal Institute of Technology, Stockholm, 2005.

[14] N. Jenkins and J. Ekanayake. *Renewable Energy Engineering*. Cambridge University Press, Cambridge, 2017.

[15] F. C. L. Trindade, T. S. D. Ferreira, M. G. Lopes, and W. Freitas. Mitigation of Fast Voltage Variations During Cloud Transients in Distribution Systems with PV Solar Farms. *IEEE Transactions on Power Delivery*, 32(2):921–932, 2017.

[16] Konsumenternas Energimarknadsbyrå. *Elkvalitet*, 2020. Available at: https://www.energimarknadsbyran.se/el/konsumentratt/elkvalitet-och-stromavbrott/elkvalitet/ (Accessed: 02.02.2021).

[17] E. Axelsson, P. Blomqvist, K. Dvali, K. Ludvig, and T. Unger. *Utbyggnad av solel i Sverige*. Energiforsk, 2017.

[18] Energimarknadsinspektionen. *EIFS2013:1 Energimarknadsinspektionens föreskrifter och allmänna råd om krav som ska vara uppfyllda för att överföringen av el ska vara av god kvalitet*. Energimarknadsinspektionens författningssamling, 2013.

[19] SEK Svensk Elstandard. *SS-EN 50160 Voltage characteristics of electricity supplied by public distribution systems*. SEK Svensk Elstandard, 2020.

[20] European Union. *Commission Regulation(EU) 2016/631 Establishing a network code on requirements for grid connection of generators*. Official Journal of the European Union, 2016.

[21] Energimarknadsinspektionen. *EIFS 2018:2 Energimarknadsinspektionens föreskrifter om fastställande av generellt tillämpliga krav för nätanslutning av generatorer*. Energimarknadsinspektionens författningssamling, 2018.

[22] Svensk Solenergi. *Installationsguide: Nätanslutna Solcellsanläggningar*. SolEl-programmet, n.d.

[23] SMHI. *Solinstrålning*, 2021. Available at: https://www.smhi.se/kunskapsbanken/meteorologi/solstralning-1.4186 (Accessed: 23.02.2021).

[24] Energimyndigheten. *Effekter i elsystemet från en ökad andel solel*. Energimyndigheten, Eskilstuna, 2016.

[25] J. Marcos, M. Marroyo, E. L. Pigueiras, and M. García. Power output fluctuations in large pv plants. *Renewable Energy and Power Quality*, 1(10):1276–1281, 2012.

[26] R. van Haaren, M. Morjaria, and V. Fthenakis. Empirical assessment of short-term variability from utility-scale solar pv plants. *Progress in Photovoltaics: Research and Applications*, 22(5):548–559, 2012.

[27] S. Shivashankar, S. Mekhilef, H. Mokhlis, and M. Karimi. Mitigating methods of power fluctuation of photovoltaic (PV) sources - A review. *Renewable and Sustainable Energy Reviews*, 59:1170–1184, 2016.

[28] M. Kraiczy, L. Al Fakhri, T. Stetz, and M. Braun. *Do it locally: Local voltage support by distributed generation – A management summary (Report IEA-PVPS T14-08:2017)*. International Energy Agency Photovoltaic Power Systems Programme, Germany, 2017.

[29] P. Bagge. *Analys av elkvaliteten i Sveriges första MW-solcellspark*. Mälardalens Högskola, MälarEnergi, Kraftpojkarna, Energimyndigheten, 2015.

[30] NREL. *Advanced inverter functions to support high levels of distributed solar*. National Renewable Energy Laboratory, Golden, 2014.

[31] EPRI. *Common Functions for Smart Inverter: 4th Edition*. Electric Power Research Institute, Palo Alto, 2016.

[32] C. Schauder. *Advanced Inverter Technology for High Penetration Levels of PV Generation in Distribution Systems*. National Renewable Energy Laboratory, Boston, 2014.

[33] T. Beach, A. Kozinda, and V. Rao. *Advanced Inverters for Distributed PV: Latent Opportunities for Localized Reactive Power Compensation*. Cal x Clean Coalition, Energy C226.7, Menlo Park, 2013.

[34] S. Vlahinić, D. Franković, V. Komen, and A. Antonić. Reactive power compensation with pv inverters for system loss reduction. *Energies*, 12(21):4062, 2019.

[35] M. Noroozian, A. N. Petersson, B. Thorvaldson, B. A. Nilsson, and C. W. Taylor. Benefits of svc and statcom for electric utility application. *IEEE PES Transmission and Distribution Conference and Exposition*, 3:1192–1199, 2003.

[36] European Commission. *PHOTOVOLTAIC GEOGRAPHICAL INFORMATION SYSTEM*, 2019. Available at: `https://re.jrc.ec.europa.eu/pvg_tools/en/tools.html#PVP` (Accessed: 23.03.2021).

[37] R. Gustavsson. *Praktisk Elkvalitet*. Nordbo Kraftteknik AB, 2003.