

REFERENSI

- [1] T. Guardian, “Australians could be charged for exporting energy from rooftop solar panels to the grid.” <https://www.theguardian.com/environment/2021/mar/25/australians-could-be-charged-for-exporting-energy-from-rooftop-solar-panels-to-the-grid>.
- [2] PT. Perusahaan Listrik Negara, “Rencana usaha penyediaan tenaga listrik,” *Rencana Usaha Penyediaan Tenaga List.*, pp. 2019–2028, 2019.
- [3] B. Uzum, A. Onen, H. M. Hasanien, and S. M. Mueen, “Rooftop solar pv penetration impacts on distribution network and further growth factors—a comprehensive review,” *Electron.*, vol. 10, no. 1, pp. 1–31, 2021, doi: 10.3390/electronics10010055.
- [4] M. S. Elnozahy and M. M. A. Salama, “Technical impacts of grid-connected photovoltaic systems on electrical networks - A review,” *J. Renew. Sustain. Energy*, vol. 5, no. 3, 2013, doi: 10.1063/1.4808264.
- [5] E. Yao, P. Samadi, V. W. S. Wong, and R. Schober, “Residential Demand Side Management Under High Penetration of Rooftop Photovoltaic Units,” *IEEE Trans. Smart Grid*, vol. 7, no. 3, pp. 1597–1608, 2016, doi: 10.1109/TSG.2015.2472523.
- [6] A. Cabrera-Tobar, E. Bullich-Massagué, M. Aragüés-Peñalba, and O. Gomis-Bellmunt, “Review of advanced grid requirements for the integration of large scale photovoltaic power plants in the transmission system,” *Renew. Sustain. Energy Rev.*, vol. 62, pp. 971–987, 2016, doi: 10.1016/j.rser.2016.05.044.
- [7] T. H. I. L. Page, “Typhoon HIL,” pp. 4–5, 2012.
- [8] A. Cabrera-Tobar, E. Bullich-Massagué, M. Aragüés-Peñalba, and O. Gomis-Bellmunt, “Active and reactive power control of a PV generator for grid code compliance,” *Energies*, vol. 12, no. 20, 2019, doi: 10.3390/en12203872.
- [9] S. Soppin, “Everything you need to know about Node-RED,” 2017. <https://www.opensourceforu.com/wp-content/uploads/2017/08/NodeRed.jpg>.
- [10] RANDOMNERDTUTORIALS, “What is MQTT and How It Works,” *MQTT*, 2017. <https://randomnerdtutorials.com/what-is-mqtt-and-how-it-works/>.
- [11] Espressif, “ESP32 Series Datasheet,” *Espr. Syst.*, pp. 1–61, 2019, [Online]. Available: www.espressif.com.
- [12] RANDOMNERDTUTORIALS, “Getting Started with the ESP32 Development Board,” 2016. <https://randomnerdtutorials.com/getting-started-with-esp32/>.
- [13] T. T. Saputro, “Menggunakan Pin GPIO Pada ESP32,” *ESP32*, 2019. <https://embeddednesia.com/v1/menggunakan-pin-gpio-pada-esp32/>.
- [14] A. Sangwongwanich, Y. Yang, and F. Blaabjerg, “Development of flexible active power control strategies for grid-connected photovoltaic inverters by modifying MPPT algorithms,” *2017 IEEE 3rd Int. Futur. Energy Electron. Conf. ECCE Asia, IFEEC - ECCE Asia 2017*, pp. 87–92, 2017, doi: 10.1109/IFEEC.2017.7992423.
- [15] J. Shen, C. Jiang, and B. Li, “Controllable load management approaches in smart grids,” *Energies*, vol. 8, no. 10, pp. 11187–11202, 2015, doi: 10.3390/en81011187.
- [16] A. Hoke, E. Muljadi, and D. Maksimovic, “Real-time photovoltaic plant maximum power point estimation for use in grid frequency stabilization,” *2015 IEEE 16th Work. Control Model. Power Electron. COMPEL 2015*, 2015, doi: 10.1109/COMPEL.2015.7236496.
- [17] S. Nanou, A. Papakonstantinou, and S. Papathanassiou, “Control of a PV generator to maintain active power reserves during operation,” *27th Eur. Photovolt. Sol. Energy Conf. Exhib. (EU PVSEC 2012)*, no. June 2019, pp. 4059–4063, 2012, [Online]. Available: <http://www.eupvsec-proceedings.com/proceedings?paper=16170>.
- [18] Kementrian ESDM, “Aturan Jaringan Sistem Tenaga Listrik (Grid Code),” *Menteri Energi dan Sumber Daya Miner. Republik Indones.*, no. 3, pp. 417–607, 2020, [Online]. Available:



- [https://jdih.esdm.go.id/storage/document/PM ESDM No 20 Tahun 2020.pdf](https://jdih.esdm.go.id/storage/document/PM%20ESDM%20No%2020%20Tahun%202020.pdf).
- [19] T. HIL, “Typhoon HIL Documentation.” https://www.typhoon-hil.com/documentation/typhoon-hil-software-manual/References/pv_inverter.html.
 - [20] Z. Forecaster, “ESP32 Analog To Digital Conversion Accuracy,” 2020. <https://w4krl.com/esp32-analog-to-digital-conversion-accuracy/>.
 - [21] R. N. Tutorials, “ESP32 ADC – Read Analog Values with Arduino IDE.” <https://randomnerdtutorials.com/esp32-adc-analog-read-arduino-ide/#:~:text=These pins have a resolution,between 3.2 and 3.3V>.
 - [22] Espressif, “Analog to Digital Converter (ADC).” <https://docs.espressif.com/projects/esp-idf/en/latest/esp32s2/api-reference/peripherals/adc.html>.