

1. A method for generating electric power by using solar cells to convert energy from the sun into a flow of electrons.
2. The feed-in tariff is the price at which the state promises to buy electricity produced by renewable energy generators.
3. Including from France, Germany, Luxembourg, Liechtenstein, Switzerland, Austria, Belgium, the United States, China, Norway, Denmark, Sweden, Spain, Turkey, Cyprus, Korea, the UK, Lithuania, Poland and Romania.
4. "Share of Foreign RES Investors to be More Than 30%, Investment Could Reach EUR 2.5 bln by Summer 2020 – Experts," Interfax-Ukraine, Ukraine News Agency, May 7, 2020, at <https://en.interfax.com.ua/news/economic/660680.html>. By the end of 2019, almost \$10 billion in total had been invested (including by local investors) in renewable energy (\$6.2 billion in 2018-2019 alone), making it one of the top five sectors for investment in the Ukrainian economy; see Kozakevich, O., "Why Ukraine's once thriving renewable energy sector could be at dire risk of failure," Renewable Energy World, April 30, 2020, at <https://www.renewableenergyworld.com/2020/04/30/why-ukraines-once-thriving-renewable-energy-sector-could-be-atdire-risk-of-failure/#gref>.
5. Id.
6. Zaika, B. "Kings of the Green Tariff: Top 10 of the Largest Investors into the Renewable Energy of Ukraine and the Beneficiaries of the 'Green' Tariff," Liga.net, at https://project.liga.net/projects/greentarriff_kings/?fbclid=IwAR1Dn6XKyEQyWaZty31j3L327Hr7OUmFzdBIE0kwZD1-7nIPhSbd99jrU.
7. Includes geothermal, hydrothermal, aerothermal, solar, wind, wave, tidal energy, hydropower energy not exceeding 10 MW capacity, biomass and biogas.
8. In addition, a premium is paid in the amount of 5 percent to 10 percent of the applicable green tariff rate to those renewable energy facilities that use equipment of Ukrainian origin, with the percentage depending on the share of such use.
9. Initially, the law provided for three stages for decreasing the green coefficients for facilities commissioned in 2015, 2020 and 2025. However, due to financial concerns, the decrease scheduled for coefficients for some types of energy (e.g., PV energy) in 2013, 2015 and 2019 was moved forward by introducing additional stages, while applying the green coefficients to further types of energy facilities and slightly changing some coefficients.
10. See Zaika, B., "Veto for Akhmetov. Zelensky Rejected a Memorandum With 'Green' Business: Two Scenarios," Liga News, May 26, 2020, at <https://ua-news.liga.net/economics/articles/veto-dlya-ahmetova-zelenskiy-vidhiliv-memorandumiz-zelenim-biznesom-dva-stsenarii>.
11. The green tariff will also be applicable to wind energy facilities with less than 5 MW capacity, and solar energy facilities with less than 1 MW capacity, which were put into operation after January 1, 2020.
12. See Article 17-1 of the 1997 Law of Ukraine "On Electric Power Industry," and Article 9-1 of the 2003 Law of Ukraine "On Alternative Sources of Energy" ("The State shall guarantee that for economic entities producing electricity from alternative energy sources at commissioned electricity facilities, the procedure for stimulating the production of electricity from alternative energy sources established in accordance with the provisions of this Article on the date of commissioning of the facilities, including commissioning of the construction queues of power plants (start-up complexes), shall apply. In the event of legislation changes related to the procedure for stimulating the production of electricity from alternative energy sources, businesses may choose a new procedure for stimulation.").
13. National Commission Regulating the Spheres of Energy and Utilities.
14. According to the Guaranteed Buyer's website, as of May 25, 2020 the Guaranteed Buyer had covered only 33 percent of outstanding amounts payable to renewable energy producers (<https://www.gpee.com.ua/main/news?id=342> as at June 4, 2020).

15. "The Ministry of Energy Plans to Agree to Reduce the 'Green Tariff' Without Extending the Payment Term – Buslavets," Business Censor, May 18, 2020, at https://biz.censor.net.ua/news/3196193/minenergo_planiruet_dogovoritsya_o_snijenii_zeleno_go_tarifa_bez_prodleniya_sroka_vyplat_buslavets.
16. We do not know what those entities' conditions are.
17. "The Government Has Not Fully Agreed With Renewable Energy Investors – Shmygal," OilPoint, June 11, 2020, at <https://oilpoint.com.ua/pravitelstvo-ne-do-koncza-dogovorilos-s-investorami-vie-shmygal/>.
18. Government Signs Memorandum with Green Energy Producers, Communications Department of the Secretariat of the CMU, June 10, 2020 – official government portal at <https://www.kmu.gov.ua/en/news/uryad-pidpisav-memorandum-zvirobnikami-zelenoyi-elektroenergiyi>.
19. Natland Investment Group N.V., Natland Group Limited, G.I.H.G. Limited, and Radiance Energy Holding S.A.R.L. v. The Czech Republic, PCA Case No. 2013-35, Partial Award, December 20, 2017. In the claim brought under the CyprusCzech Republic BIT, Czech Republic-Luxembourg BIT and Czech Republic-Netherlands BIT in 2013, the tribunal of Veijo Heiskanen, Gary Born and J. Christopher Thomas found the Czech Republic liable for a breach of the BITs' fair and equitable treatment provisions. The decision on quantum (calculation of damages) has yet to follow, and so it remains unclear whether there will be any negative financial consequences for the Czech Republic.
20. Article 30(4) of Law 54/1997 on the Electricity Sector (enacted by Spain on November 27, 1997); in accordance with Article 27 of the Law 54/1997 on the Electricity Sector, the Special Regime applied to electricity generation activities in a number of categories set out by the law, whenever they were carried out by facilities having installed capacity of no more than 50 MW.
21. Eiser Infrastructure Limited and Energía Solar Luxembourg S.à r.l. v. Kingdom of Spain, ICSID Case No. ARB/13/36, Award, May 4, 2017, paragraph 111.
22. Blanco-Diez, P., Diez-Madiavilla, M., and Alonso-Tristan, C., "Review of the Legislative Framework for the Remuneration of Photovoltaic Production in Spain: A Case Study," Sustainability, vol. 12(3), February 2020, page 1.
23. Eiser Infrastructure Limited and Energía Solar Luxembourg S.à r.l. v. Kingdom of Spain, ICSID Case No. ARB/13/36, Award, May 4, 2017, paragraph 149.
24. "Spain extends premium rates for renewable energy investors to drop lawsuits," Power Technology, December 11, 2019.
25. This rate of return was set for renewable energy facilities in 2013.
26. Fernández, C., Lozano, F., and Roth, A., "The reasonable rate of return applicable from 2020 to renewable energy facilities is approved," News, Lozano Schindhelm, 2020, at <https://es.schindhelm.com/en/news-justful/news/spain-thereasonable-rate-of-return-applicable-from-2020-to-renewable-energy-facilities-is-approved>; Calviño, I., Paz, I., Ramón Mourenza, J., and Riaño, M., "Spain approves Royal Decree-Law 17/2019, of 22 November, which establishes the new rate of reasonable return for renewable energy," Lexology, 2019. at <https://www.lexology.com/library/detail.aspx?g=2d8fd781-d750-4970-944a-bc15b5e3530d>.
27. The PV Investors v. Spain, PCA Case No. 2012-14, Final Award, Concurring and Dissenting Opinion of Charles N. Brower, February 28, 2020, page 3.
28. For a detailed analysis of the potential reasons for the different approaches in tribunals' decisions, see The PV Investors v. Spain, PCA Case No. 2012-14, Final Award, February 28, 2020, paragraphs 554-555 and Concurring and Dissenting Opinion of Charles N. Brower, February 28, 2020, paragraphs 5 to 10.
29. Under Article 10(1) of the ECT, the standard of fair and equitable treatment encompasses the protection of legitimate or reasonable expectations, protection against arbitrary, unreasonable, and disproportionate conduct, and the principle of transparency.

30. Eiser Infrastructure Limited and Energía Solar Luxembourg S.à r.l. v. Kingdom of Spain, ICSID Case No. ARB/13/36, Award, May 4, 2017 (the Eiser Award was very recently annulled due to the failure by one of the arbitrators, Stanimir Alexandrov, to disclose past and present connections with the investor's damages expert); Novenergia II - Energy & Environment (SCA), SICAR v. Kingdom of Spain, SCC Case No. 2015/063, Award, February 15, 2018; Masdar Solar & Wind Cooperatief U.A. v. Kingdom of Spain, ICSID Case No. ARB/14/1, Award, May 16, 2018; Antin Infrastructure Services Luxembourg S.à.r.l. and Antin Energia Termosolar B.V. v. Kingdom of Spain, ICSID Case No. ARB/13/31, Award, June 15, 2018; Foresight Luxembourg Solar 1 S.Á.R.L., Foresight Luxembourg Solar 2 S.Á.R.L., Greentech Energy System A/S, GWM Renewable Energy I S.P.A and GWM Renewable Energy II S.P.A v. Kingdom of Spain, SCC Case No. 2015/150, Award, November 14, 2018; SolEs Badajoz GmbH v. Kingdom of Spain, ICSID Case No. ARB/15/38, Award, July 31, 2019; 9REN Holding S.a.r.l v. Kingdom of Spain, ICSID Case No. ARB/15/15, Award, May 31, 2019; Cube Infrastructure Fund SICAV and others v. Kingdom of Spain, ICSID Case No. ARB/15/20, Award, July 15, 2019; OperaFund Eco-Invest SICAV PLC and Schwab Holding AG v. Kingdom of Spain, ICSID Case No. ARB/15/36, Award, September 6, 2019; InfraRed Environmental Infrastructure GP Limited and others v. Kingdom of Spain, ICSID Case No. ARB/14/12, Award, August 2, 2019; Watkins Holdings S.à r.l. and others v. Kingdom of Spain, ICSID Case No. ARB/15/44, Award, January 21, 2020.
31. Charanne B.V. and Construction Investments S.a.r.l. v. Spain, SCC Case No. 062/2012, Final Award, January 21, 2016; Isolux Infrastructure Netherlands B.V. v. Kingdom of Spain, SCC Case No. 2013/153, Award, July 12, 2016; Stadtwerke München GmbH and others v. Kingdom of Spain, ICSID Case No. ARB/15/1, Award, December 2, 2019.
32. The PV Investors v. Spain, PCA Case No. 2012-14, Final Award, February 28, 2020, paragraph 623; RREEF Infrastructure (G.P.) Limited and RREEF Pan-European Infrastructure Two Lux S.à r.l. v. Kingdom of Spain, ICSID Case No. ARB/13/30, Decision on Jurisdiction or Decision on Responsibility and on the Principles of Quantum, November 30, 2018; BayWa r.e. Renewable Energy GmbH and BayWa r.e. Asset Holding GmbH v. Kingdom of Spain, ICSID Case No. ARB/15/16, Decision on Jurisdiction, Liability and Directions on Quantum, December 2, 2019; NextEra Energy Global Holdings B.V. and NextEra Energy Spain Holdings B.V. v. Kingdom of Spain, ICSID Case No. ARB/14/11, Decision on Jurisdiction, Liability and Quantum Principles, March 12, 2019; RWE Innogy GmbH and RWE Innogy Aersa S.A.U. v. Kingdom of Spain, ICSID Case No. ARB/14/34, Decision on Jurisdiction, Liability, and Certain Issues of Quantum, December 30, 2019.
33. The PV Investors v. Spain, PCA Case No. 2012-14, Final Award, February 28, 2020, paragraphs 570, 576, 624 and 639; Novenergia II - Energy & Environment (SCA), SICAR v. Kingdom of Spain, SCC Case No. 2015/063, Award, February 15, 2018, paragraph 688; 9REN Holding S.a.r.l v. Kingdom of Spain, ICSID Case No. ARB/15/15, Award, May 31, 2019, paragraph 65 and ft. 254; Cube Infrastructure Fund SICAV and others v. Kingdom of Spain, ICSID Case No. ARB/15/20, Award, July 15, 2019, paragraphs 305 and 409; Charanne B.V. and Construction Investments S.a.r.l. v. Spain, SCC Case No. 062/2012, Final Award, January 21, 2016, paragraph 535.
34. Charanne B.V. and Construction Investments S.a.r.l. v. Spain, SCC Case No. 062/2012, Final Award, January 21, 2016, paragraph 517.
35. Isolux Infrastructure Netherlands B.V. v. Kingdom of Spain, SCC Case No. 2013/153, Award, July 12, 2016, Unofficial translation of Award Extracts and Dissenting Opinion from Spanish, paragraph 822, citing the Saluka Investments BV v. The Czech Republic, UNCITRAL, Partial Award, March 17, 2006, paragraphs 460-461.
36. Id., paragraph 823.
37. Charanne B.V. and Construction Investments S.a.r.l. v. Spain, SCC Case No. 062/2012, Final Award, January 21, 2016, paragraph 538.

38. The PV Investors v. Spain, PCA Case No. 2012-14, Final Award, February 28, 2020, paragraph 582, citing Electrabel S.A. v. The Republic of Hungary, ICSID Case No. ARB/07/19, Award, November 25, 2015, paragraphs 165 and 180.
39. *Id.*, paragraph 583.
40. Novenergia II - Energy & Environment (SCA), SICAR v. Kingdom of Spain, SCC Case No. 2015/063, Award, February 15, 2018, paragraph 695
41. Stadtwerke München GmbH and others v. Kingdom of Spain, ICSID Case No. ARB/15/1, Award, December 2, 2019, paragraph 261.
42. The PV Investors v. Spain, PCA Case No. 2012-14, Final Award, February 28, 2020, paragraph 578, citing EDF (Services) Limited v. Romania, ICSID Case No. ARB/05/13, Award, October 8, 2009, paragraph 217.
43. Cube Infrastructure Fund SICAV and others v. Kingdom of Spain, ICSID Case No. ARB/15/20, Decision on Jurisdiction, Liability and Partial Decision on Quantum, February 19, 2019, paragraph 388.
44. Charanne B.V. and Construction Investments S.a.r.l. v. Spain, SCC Case No. 062/2012, Final Award, January 21, 2016, paragraph 495.
45. Masdar Solar & Wind Cooperatief U.A. v. Kingdom of Spain, ICSID Case No. ARB/14/1, Award, May 16, 2018, paragraphs 357-369; Eiser Infrastructure Limited and Energía Solar Luxembourg S.à r.l. v. Kingdom of Spain, ICSID Case No. ARB/13/36, Award, May 4, 2017, paragraph 119; Stadtwerke München GmbH and others v. Kingdom of Spain, ICSID Case No. ARB/15/1, Award, December 2, 2019, paragraph 264.
46. See Isolux Infrastructure Netherlands B.V. v. Kingdom of Spain, SCC Case No. 2013/153, Award, July 12, 2016, Unofficial translation of Award Extracts and Dissenting Opinion from Spanish, paragraph 798.
47. The PV Investors v. Spain, PCA Case No. 2012-14, Final Award, February 28, 2020, paragraph 638.
48. Act 180, Section 1(2) of Act 180 on the Support of Electricity Generation from Renewable Energy Sources (entered into force in the Czech Republic on August 1, 2005).
49. Decree No. 475/2005 Coll., paragraph 4(1), ERO Methodology for Determination of Purchasing Prices and Green Bonuses. See also JSW Solar (zwei) GmbH & Co.KG, Gisela Wirtgen, Jürgen Wirtgen, and Stefan Wirtgen v. Czech Republic, PCA Case No. 2014-03, Final Award, October 11, 2017, paragraphs 365 and 367.
50. With installed capacity of up to 30 kWh.
51. Act 330/2010 dated November 3, 2010.
52. Act 402/2010, Section 7(a). The Czech Republic provided an opportunity for individual solar producers adversely affected by the solar levy to pay it over a longer period of time; see JSW Solar (zwei) GmbH & Co.KG, Gisela Wirtgen, Jürgen Wirtgen, and Stefan Wirtgen v. Czech Republic, PCA Case No. 2014-03, Final Award, October 11, 2017, paragraph 403.
53. Act 310/2013, Art. I(8)–(9), amending sections 14 and 18 of Act 165.
54. Professor Dr Hans van Houtte (President) and Messrs John Beechey CBE and Toby Landau QC issued the awards in WA Investments-Europa Nova Limited v. The Czech Republic, PCA Case No. 2014-19; Voltaic Network GmbH v. The Czech Republic, PCA Case No. 2014-20; Photovoltaik Knopf Betriebs-GmbH v. The Czech Republic, PCA Case No. 2014-21; and I.C.W. Europe Investments Limited v. The Czech Republic, PCA Case No. 2014-22.
55. Mr Gary Born and HE Judge Peter Tomka served as parties' appointed arbitrators in Antaris Solar GmbH and Dr. Michael Göde v. The Czech Republic, PCA Case No. 2014-01; and JSW Solar (zwei) GmbH & Co.KG, Gisela Wirtgen, Jürgen Wirtgen, and Stefan Wirtgen v. Czech Republic, PCA Case No. 2014-03.
56. WA Investments-Europa Nova Limited v. The Czech Republic, PCA Case No. 2014-19; Voltaic Network GmbH v. The Czech Republic, PCA Case No. 2014-20; Photovoltaik Knopf Betriebs-

- GmbH v. The Czech Republic, PCA Case No. 2014-21; I.C.W. Europe Investments Limited v. The Czech Republic, PCA Case No. 2014-22; Antaris Solar GmbH and Dr. Michael Göde v. The Czech Republic, PCA Case No. 2014-01.
57. Antaris Solar GmbH and Dr. Michael Göde v. The Czech Republic, PCA Case No. 2014-01.
 58. JSW Solar (zwei) GmbH & Co.KG, Gisela Wirtgen, Jürgen Wirtgen, and Stefan Wirtgen v. Czech Republic, PCA Case No. 2014-03, Final Award, October 11, 2017, paragraph 406.
 59. Photovoltaik Knopf Betriebs-GmbH v. The Czech Republic, PCA Case No. 2014-21, Award, May 15, 2019, paragraph 490; WA Investments-Europa Nova Limited v. The Czech Republic, PCA Case No. 2014-19, Award, May 15, 2019, paragraph 577; Voltaic Network GmbH v. The Czech Republic, PCA Case No. 2014-20, Award, May 15, 2019, paragraph 494; I.C.W. Europe Investments Limited v. The Czech Republic, PCA Case No. 2014-22, Award, May 15, 2019, paragraph 536.
 60. Photovoltaik Knopf Betriebs-GmbH v. The Czech Republic, PCA Case No. 2014-21, Award, May 15, 2019, paragraph 495, citing Duke Energy Electroquil Partners and Electroquil S.A. v. Republic of Ecuador, ICSID Case No. ARB/04/19, Award, August 18, 2008, paragraph 340.
 61. Id., paragraph 470.
 62. Id., paragraph 496.
 63. Article 17-1 of the 1997 Law of Ukraine “On Electric Power Industry” and Article 9-1 of the 2003 Law of Ukraine “On Alternative Sources of Energy.”
 64. Statistics of ECT Cases as of June 1, 2020, page 2, at https://www.energycharter.org/media/news/article/updatedstatistics-on-investment-arbitration-cases-under-the-energychartertreaty/?tx_news_pi1%5Bcontroller%5D=News&tx_news_pi1%5Baction%5D=detail&cHash=c06700cf198e364baf7f478afa580f2b