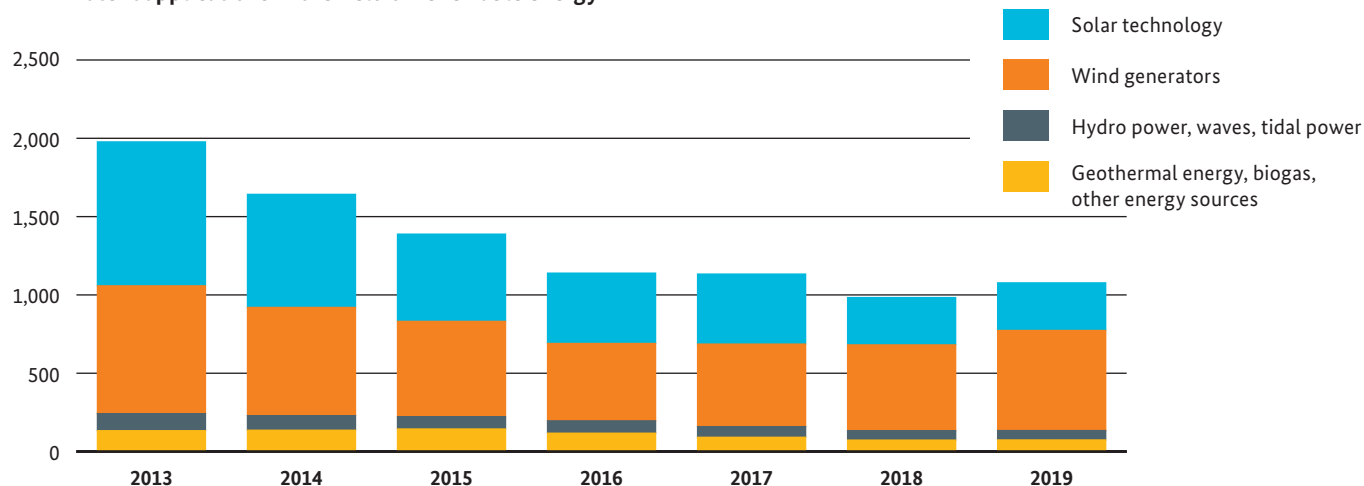


Patent applications in the field of renewable energy



Development of patent applications effective in Germany¹⁾ in selected fields of renewable energy

Renewable energy ²⁾	Year of publication						
	2013	2014	2015	2016	2017	2018	2019
Solar technology³⁾							
German applicants	254	175	166	118	115	69	60
Foreign applicants	665	547	391	331	332	233	244
Subtotal	919	722	557	449	447	302	304
Wind generators⁴⁾							
German applicants	342	267	264	181	239	235	243
Foreign applicants	474	424	346	313	288	313	396
Subtotal	816	691	610	494	527	548	639
Hydro power, waves tidal power⁵⁾							
German applicants	34	25	26	14	16	11	6
Foreign applicants	75	68	51	65	52	49	54
Subtotal	109	93	77	79	68	60	60
Geothermal energy, biogas, other energy sources⁶⁾							
German applicants	65	72	68	43	41	27	22
Foreign applicants	68	64	76	74	50	46	52
Subtotal	133	136	144	117	91	73	74
Total³⁾	1,977	1,642	1,388	1,139	1,133	983	1,077

¹⁾ Applications published by the DPMA and the EPO, avoiding double counting, by year of publication and the applicant's residence or principal place of business.

²⁾ The table lists the published patent documents published 18 months after the filing date in accordance with the statutory time limit. Each of the figures thus shows what the status was one and a half years earlier. Not exhaustive. Source: DEPATIS

³⁾ F24J2 (until 2017), F24S (from 2018), F03G6, H02N6 (until 2013), H02S (since 2014), E04D13/18, C02F1/14, H01L31/04 to H01L31/078

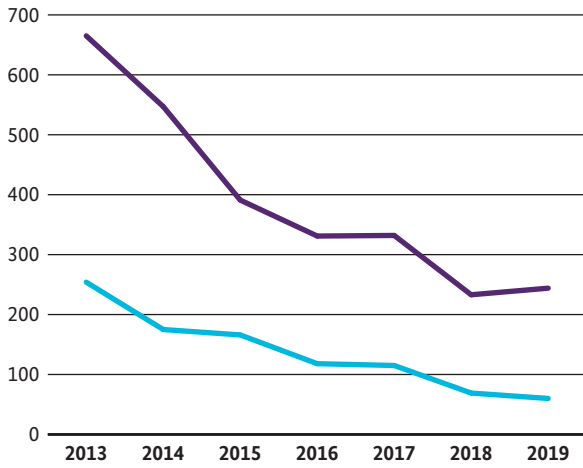
⁴⁾ F03D

⁵⁾ F03B13/10 to F03B13/26, F03B7

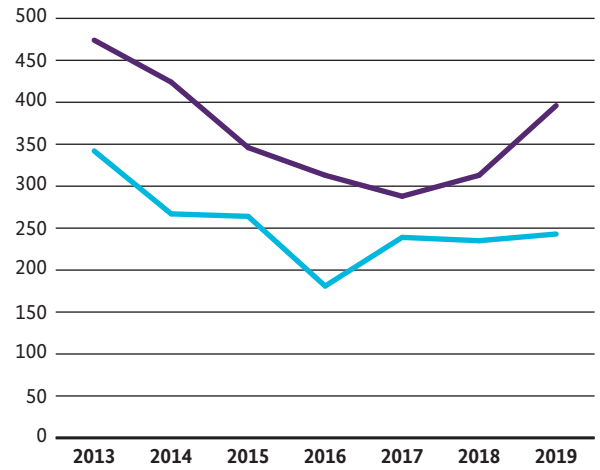
⁶⁾ F24J3 (until 2017), F24V40 (from 2018), F24V50 (from 2018), F24V99 (from 2018), F24T10 (from 2018), F24T50 (from 2018), F03G3, F03G4, F03G7/00 to F03G7/08, C12M1/107, C12M1/113

Patent applications in the field of renewable energy

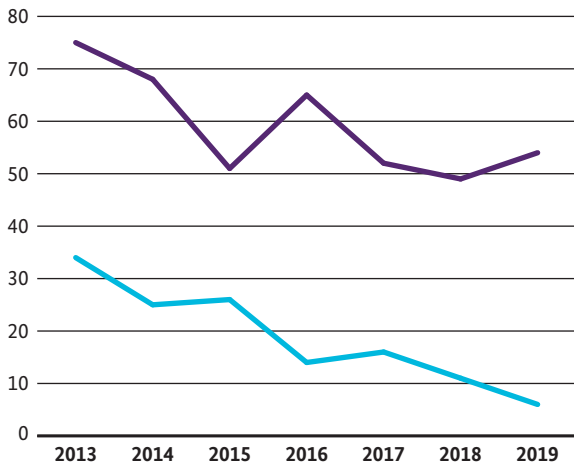
Solar technology



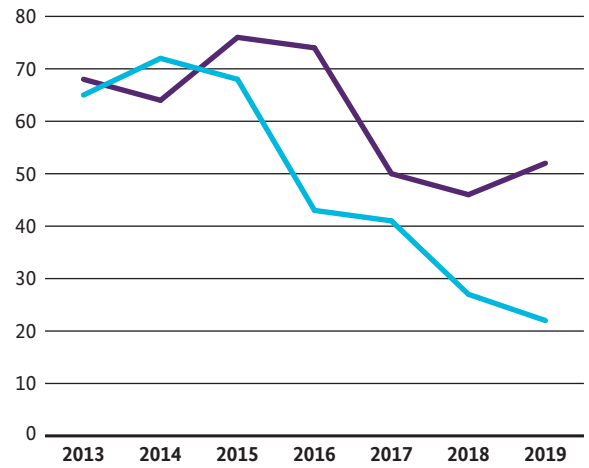
Wind generators





Hydro power, waves, tidal power



Geothermal energy, biogas, other energy sources



 German applicants
 Foreign applicants