



Submitted to Colorado PUC E-Filings System

International Solar Feed-In Tariff Programs

Compiled by Kelly B. Crandall

Intern

Colorado Public Utilities Commission

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This research was conducted as part of a joint NARUC/NREL/State Partnership Program to investigate the application of feed-in tariffs to promote renewable energy penetration.

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Country	Legislation & Amendments (REN 21)	Solar Tariff Rates (per kWh) & Contract Duration	Cost Calculation Methodology	Differentiation	Adjustment										
Austria	Green Electricity Act of 2002 (Federal Law Gazette I no. 149/2002 as amended by Federal Law Gazette. I No. 10/2007); Green Electricity Regulation of 2006 (by the Federal Minister of Economics and Labor; appears to apply to CHP & medium hydro) (RES-Legal).	<p>Fixed FIT for 12 years</p> <table> <tr> <td>Size</td> <td><5 kW</td> <td>5-10 kW</td> <td>> 10 kW</td> </tr> <tr> <td></td> <td>46 (65)</td> <td>40 (56)</td> <td>30 (42)</td> </tr> </table> <p>2008 €ct (2009 \$ct) per kWh for installations (Gipe)</p>	Size	<5 kW	5-10 kW	> 10 kW		46 (65)	40 (56)	30 (42)	Based on "average production costs of cost-efficient plants that are up to date with the latest technological research" (RES-Legal).	Differentiated by size, but do not appear to separate peak/off-peak (RES-Legal; Gipe tables).	12-year FITs for PV are guaranteed at fixed rate for first 10 years, then receive scaled-down amounts (75%, 50%) in the 11th and 12th years (RES-Legal). After 12 years, RE generators can only get the market rate of electricity (RES-Legal).		
Size	<5 kW	5-10 kW	> 10 kW												
	46 (65)	40 (56)	30 (42)												
Denmark	Began in 1993. Electricity Supply Act of 2000 limits FITs to existing installations for a 10-year transition period, beginning in 2003, to TGCs (Sijm). Most recent law is the Act on Electricity Supply, No. 1115/2006 (RES-Legal).	<table> <tr> <td>Premium FIT for 10-20 years</td> <td>Capped Sum</td> </tr> <tr> <td>Market Price + Variable Bonus</td> <td>60</td> </tr> </table> <p>ore/kWh for installations connected between 2004-2008</p>	Premium FIT for 10-20 years	Capped Sum	Market Price + Variable Bonus	60	Pre-2000 FITs were based on avoided cost for biomass and provided RE generators with a fixed percentage, about 85% of the consumer price of energy in a distribution area for Wind/PV (Sijm). However, since the payment was the same for different REs, this subsidized wind but not more expensive technologies (NREL).	No apparent differentiation except for by type of resource (RES-Legal).	Does not appear to be any adjustment for inflation.						
Premium FIT for 10-20 years	Capped Sum														
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France	Inception in Loi n°2000-108 and Décret n°2000-1196; subsequently amended (RES-Legal; Gipe).	<p>Fixed FIT for 20 years (6 for Rhone Region)</p> <table> <tr> <td>Base PV FIT</td> <td>32.8 (44.8)</td> </tr> <tr> <td>BIPV (2008)</td> <td>60.1 (82)</td> </tr> <tr> <td>Rhone-Alps Region (2009)</td> <td>40 (54.6)</td> </tr> <tr> <td>Commercial Buildings (2009)</td> <td>45 (61.4)</td> </tr> <tr> <td>Overseas Territories</td> <td>43.7 (59.6)</td> </tr> </table> <p>€ct (\$ct) per kWh for installations in 2008/2009 (Gipe)</p>	Base PV FIT	32.8 (44.8)	BIPV (2008)	60.1 (82)	Rhone-Alps Region (2009)	40 (54.6)	Commercial Buildings (2009)	45 (61.4)	Overseas Territories	43.7 (59.6)	<p>"The amount of payment depends on the costs of investment and operation, which incur for the system operators and shall be compensated for by the distribution grid operators, who only purchase electricity. In addition, system operators may receive a premium, which depends on the amount of electricity fed in and thus rewards this contribution to the achievement of the national energy targets (Loi n°2000-108, Art. 10)" (RES-Legal).</p>	For wind, fixed for 10 years and the following 5 are scaled based on average full-load hours per year of first decade. For PV, differentiated by type and location.	Inflation adjustment of up to 60% of the CP, but does not decrease (Gipe). Additionally, appears to adjust the FIT levels for new installations each year by a CPI adjustment and not just by degressing (Gipe).
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Overseas Territories	43.7 (59.6)														
Germany	Began in 1990. Electricity Feed-in Act (Strg: 1991); Renewable Energy Sources Act (EEG; 2000 &	<p>Fixed FIT based on electricity generation costs, including capital, consumption, and</p>	Differentiated based on size, type of resource, type of installation.	Locational: for wind, after the first 5 years the tariff is calculated against a "reference turbine" and											

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Greece	Began in 1994. Law 2244/94 defines autoproducers (net metering) and independent power producers (<50 MW); PPC monopoly must buy all IPP power under 10-year contracts; New Development Law 2601/98 subsidizes energy producers up to 40% or tax deduction up to 100%; tax deductions of 75% for individuals for installing RE since 1995. Most recent law is Law Nr. 3468/2006 (RES-Legal).	<table border="1"> <tr> <td>Fixed FIT: 10 years for PV, 20 years for solar thermal, 25 years for small rooftop PV</td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>Small Rooftop PV (< 10 kW)</td><td></td><td></td><td>55 (77.6)</td><td></td><td></td></tr> <tr> <td>Size</td><td>≤ 100 kW</td><td>> 100 kW</td><td>≤ 5 MW</td><td>> 5 MW</td><td></td></tr> <tr> <td>Mainland PV</td><td>45 (62.5)</td><td>40 (54.6)</td><td>x</td><td>x</td><td></td></tr> <tr> <td>Mainland Solar Thermal</td><td>x</td><td>x</td><td>25 (34.1)</td><td>23 (31.4)</td><td></td></tr> <tr> <td>Islands PV</td><td>50 (68.6)</td><td>45 (61.4)</td><td>x</td><td>x</td><td></td></tr> <tr> <td>Islands Solar Thermal</td><td>x</td><td>x</td><td>27 (36.8)</td><td>25 (34.1)</td><td></td></tr> </table> <p>€ct (Sct) per kWh for installations in 2009 (GiPe; HELAPCO)</p>	Fixed FIT: 10 years for PV, 20 years for solar thermal, 25 years for small rooftop PV						Small Rooftop PV (< 10 kW)			55 (77.6)			Size	≤ 100 kW	> 100 kW	≤ 5 MW	> 5 MW		Mainland PV	45 (62.5)	40 (54.6)	x	x		Mainland Solar Thermal	x	x	25 (34.1)	23 (31.4)		Islands PV	50 (68.6)	45 (61.4)	x	x		Islands Solar Thermal	x	x	27 (36.8)	25 (34.1)		"The criteria determining the amount of payment are the costs of construction and operation of a certain system type, i.e. investment costs, operational costs, costs of metering and capital" (RES-Legal).	Differentiated by peak/off-peak (nuances) and low, medium, and high voltage (Cerveny). Locational differentiation that incentivizes RE development on islands.	Minister of Development adjusts FITs annually for inflation (based on 80% of previous year's CPI) (RES-Legal; HELAPCO).
Fixed FIT: 10 years for PV, 20 years for solar thermal, 25 years for small rooftop PV																																															
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		PV 2.01 (51) NIS (\$ct) per kWh for installations in 2009 (Gipe)			
Italy	Began in 1992. Ministerial Decree of 2005 (amended by Authority Decree 188/05 & Ministerial Decree of 2007); goal of 3000 MW by 2016 (Tilli et al.). Most recent amendments, specifically for PV, are Decreto 19.02.2007 (Criteri e modalità per incentivare la produzione di energia elettrica mediante conversione fotovoltaica della fonte solare, i.e. Ministerial Decree, DM 19/02/07) and Delibera n. 90/07 (Incentivazione della produzione di energia elettrica mediante impianti fotovoltaici, i.e. Resolution of the Authority for Energy and Gas, AEEG 30/07) (RES-Legal). Separate FITs for other RE sources, but one for PV is called RESOP.	FIT for 20 years (premium or fixed somewhat unclear) Size 1-3 kW 3-20 kW > 20 kW & < 1 MW Non-Integrated 39.2 (55.3) 37.2 (52.5) 35.3 (49.8) Partially Integrated 43.1 (60.8) 41.2 (58.2) 39.2 (55.3) Integrated 48 (67.8) 45.1 (63.7) 43.1 (60.8) €ct (\$ct) per kWh for installations in 2009 (GSE Brochure)	Amount per kWh is based on the investment cost (RES-Legal), but GSE describes it as a premium on top of the market price of electricity (GSE Brochure); GSE's Nuovo Conto Energia page states that the premium is added to either the market price of electricity or the savings from net metering (via Google Translate). This makes Italian FITs among the highest offered for PV, if not the highest. 22-28/kWh depending on non-RE fraction for 25 years, up to 15,000,000 m ² surface	Must be > 1 kW and < 1 MW and connected to the grid or an isolated rural grid (RES-Legal; GSE Brochure), if capacity was increased after Apr. 20, 2007, the new capacity only was eligible for the FIT (RES-Legal). Public buildings (schools, hospitals, municipalities < 5000 people, etc.) can get a 5% increase of the FIT (RES-Legal). Building-mounted plant bonus ("premium" up to 20% of the FIT if additional energy efficiency measures are implemented (RES-Legal).	None applied.
Ontario, Canada	RESOP in 2006 & FIT in 2009. Green Energy Act adopted by Bill 150 in May 2009 and allows Ontario's Minister of Energy & Infrastructure to require the Ontario Power Authority (OPA) to implement FIT program. Replaces the Renewable Energy Standard Offer Program (RESOP), which granted PV 42 CAN-cts/kWh for 20 years and 11 CAN-cts/kWh for other RE generators. RESOP was not technically a FIT because "it is not the intent ... to have Ontario electricity ratepayers support any and all [RE] projects, regardless of their value to the system" (RESOP).	Fixed FIT for 20 years Size ≤ 10 kW 10-250 kW 250-500 kW > 500 kW Rooftop 80.2 (71.9) 71.3 (63.9) 63.5 (56.9) 53.9 (48.3) Size ≤ 10 kW > 10 kW & ≤ 10 MW Ground-mounted 80.2 (71.9) CADcts (\$cts) per kWh (Proposed, May 2009) (OPA)	Cost-based plus reasonable rate of return (FAQ).	Contract will probably require each project to include a certain amount of "provincial content," i.e. RE in an area already being developed by the Ministry (Draft FIT Rule, 7.2(f); FAQ). Adders of 1.5 CAN-cts/kWh for aboriginal projects & 1.0 CAN-cts/kWh for community projects (ground-mounted PV only); currently requires majority ownership but may allow fractional amount (proposed May 2009).	Prices may be adjusted up annually based on CPI (Draft FIT Rules, 5.3); dispute over whether adjustment will be 20% of CPI or full CPI (Revisions Presentation). Peak/off-peak prices (133% and 90% of price schedule listed) are only available for non- intermittent RE (Mar. 2009 Price Schedule). Appears to allow applicants to withdraw if they are already in the queue when the price offered drops more than 5% (Draft FIT Rules, 8.2(b)).
Slovenia	Began in 1999. Law on Energy of 1999 defined "qualified producers" as RE or high-eff	Fixed FIT for 10 years	Fixed and premiums offered and set once a year administratively with consideration for inflation	Night/day and high (Dec-Jan), middle (Mar-Apr, Oct-Nov), and low (May-Sept) seasons; 6	Uniform FITs apply for 5 years from the day the plant begins to deliver to the grid, and then

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	cogen (amended 2000, 2002, 2004, 2005, 2007); CO2 Emissions Tax of 1996 (amended 2002); National Energy Program of 2004; Decree on Prices & Premiums for Purchase of Electricity from Qualified Producers of 2002 (amended 2004, 2006). Newest version 2009 (Gipe; Feed-in-Cooperation, 7th Workshop).	<table border="1"> <tr> <td>Size</td><td>< 50 kW</td><td>< 1MW</td><td>1-10 MW</td><td>10-125 MW</td><td>(Held). Solar PV is only eligible for fixed FITs (Held). Based on reference cost of electricity, including fuel, O&M, and investment minus revenues (Feed-in-Cooperation, 7th Workshop).</td></tr> <tr> <td>On Buildings</td><td>35.826 (50.525)</td><td>32.282 (45.527)</td><td>25.621 (36.137)</td><td>21.571 (30.425)</td><td></td></tr> <tr> <td>BIPV</td><td>42.058 (59.321)</td><td>37.983 (53.572)</td><td>30.352 (42.809)</td><td>25.782 (36.363)</td><td></td></tr> <tr> <td>Ground-mounted</td><td>33.322 (46.998)</td><td>30.251 (42.658)</td><td>23.083 (32.550)</td><td>20.422 (28.798)</td><td></td></tr> <tr> <td>Premium (optional if >5 MW)</td><td>x</td><td>x</td><td>???</td><td></td><td></td></tr> <tr> <td colspan="6">€ct (\$ct) per kWh for installations in 2009 (Feed-In-Cooperation, 7th Workshop)</td></tr> </table>	Size	< 50 kW	< 1MW	1-10 MW	10-125 MW	(Held). Solar PV is only eligible for fixed FITs (Held). Based on reference cost of electricity, including fuel, O&M, and investment minus revenues (Feed-in-Cooperation, 7th Workshop).	On Buildings	35.826 (50.525)	32.282 (45.527)	25.621 (36.137)	21.571 (30.425)		BIPV	42.058 (59.321)	37.983 (53.572)	30.352 (42.809)	25.782 (36.363)		Ground-mounted	33.322 (46.998)	30.251 (42.658)	23.083 (32.550)	20.422 (28.798)		Premium (optional if >5 MW)	x	x	???			€ct (\$ct) per kWh for installations in 2009 (Feed-In-Cooperation, 7th Workshop)						separate multipliers (Held--pre-2009).	reduce by 5%, and by 10% after 10 years (Held) (unclear for 2009). Variable costs (fuel and revenues) are updated annually (Feed-in-Cooperation, 7th Workshop).
Size	< 50 kW	< 1MW	1-10 MW	10-125 MW	(Held). Solar PV is only eligible for fixed FITs (Held). Based on reference cost of electricity, including fuel, O&M, and investment minus revenues (Feed-in-Cooperation, 7th Workshop).																																			
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South Africa	Began in 2009. Electricity Regulation Act of 2006 authorizes the National Energy Regulator (NERSA) to devise FIT regulations.	<table border="1"> <tr> <td>Cost of generation plus reasonable rate of return (2009 Regulatory Guidelines); i.e. "levelized cost of electricity calculated for discount rate 12%" (?). However, 2009 Guidelines also note that ratepayers will subsidize avoided costs, so this is uncertain.</td><td>Repowered or expanded existing plants may be eligible for FITs at least in part.</td><td>FITs will be adjusted yearly for inflation, according to the CPI or a similar index (2009 Regulatory Guidelines),</td></tr> <tr> <td>Fixed FIT for 20 years</td><td></td><td></td></tr> <tr> <td>CSP</td><td>2.10 (25.9)</td><td></td></tr> <tr> <td colspan="6">Rand (\$ct) per kWh (NERSA 2009 Regulations)</td></tr> </table>	Cost of generation plus reasonable rate of return (2009 Regulatory Guidelines); i.e. "levelized cost of electricity calculated for discount rate 12%" (?). However, 2009 Guidelines also note that ratepayers will subsidize avoided costs, so this is uncertain.	Repowered or expanded existing plants may be eligible for FITs at least in part.	FITs will be adjusted yearly for inflation, according to the CPI or a similar index (2009 Regulatory Guidelines),	Fixed FIT for 20 years			CSP	2.10 (25.9)		Rand (\$ct) per kWh (NERSA 2009 Regulations)																												
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Spain	Conservation of Energy Law 82/1980 guaranteed price of RE < 5 MW fed into grid. Royal Decree 2366/1994 obliged distributors to buy electricity sold by RE plants < 100 MW. Law of the Electricity Sector 54/97 provided 'Special Regime' for RE, gave it guaranteed grid access, and provided premium for RE < 10 MW (80-90% AEP). Royal Decree on Special Regime (Regimen Especial), RD 28/1998, allowed RE plants to choose between fixed & premium FITs (amended by RD 436/2004 to allow RE plants to sell directly to market and set rates based on AET, and by RD 661/2007 to place a cap and floor on support and tie it to CPI) (Gonzalez; etc.).	<table border="1"> <tr> <td>Size</td><td>< 0.1 MW</td><td>0.1-10 MW</td><td>10-50 MW</td><td>10-125 MW</td><td>(Held). Solar PV is only eligible for fixed FITs (Held). Based on reference cost of electricity, including fuel, O&M, and investment minus revenues (Feed-in-Cooperation, 7th Workshop).</td></tr> <tr> <td>PV (1st 25 years)</td><td>44.0381</td><td>41.75</td><td>22.9375</td><td></td><td></td></tr> <tr> <td>PV (after 25 years)</td><td>35.2305</td><td>33.4</td><td>18.3811</td><td></td><td></td></tr> <tr> <td>Solar Thermal (1st 25 years)</td><td></td><td></td><td></td><td>26.9375</td><td></td></tr> <tr> <td>Solar Thermal (after 25 years)</td><td></td><td></td><td></td><td>21.5498</td><td></td></tr> <tr> <td colspan="6">Premium FIT for lifetime of project</td></tr> </table>	Size	< 0.1 MW	0.1-10 MW	10-50 MW	10-125 MW	(Held). Solar PV is only eligible for fixed FITs (Held). Based on reference cost of electricity, including fuel, O&M, and investment minus revenues (Feed-in-Cooperation, 7th Workshop).	PV (1st 25 years)	44.0381	41.75	22.9375			PV (after 25 years)	35.2305	33.4	18.3811			Solar Thermal (1st 25 years)				26.9375		Solar Thermal (after 25 years)				21.5498		Premium FIT for lifetime of project						<p>Tariff updated annually based on CPI minus 0.25% until end of 2012 (0.5% reduction afterwards)</p> <p>Gonzalez). Cannot be changed by more than 2% annually since 2004 (Held). Reduced tariff each year after 25 for both PV and solar thermal installations (i.e. 22.4 €ct/kWh reduces to 18.4 for pre-2001 wind power 10-50 MW (Held).</p> <p>Additional capacity for repowering pre-2001 wind power 10-50 MW for solar plants. Capacity caps of 371 MW for PV and 500 MW for solar thermal in 2008 (RE-S-Legal).</p> <p>Plants must be < 100 MW (RE-S-Legal).</p>	
Size	< 0.1 MW	0.1-10 MW	10-50 MW	10-125 MW	(Held). Solar PV is only eligible for fixed FITs (Held). Based on reference cost of electricity, including fuel, O&M, and investment minus revenues (Feed-in-Cooperation, 7th Workshop).																																			
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Solar	> 25 yrs	> 25 yrs	Cap	Floor																					
Thermal	25.4 (36.1)	20.32 (28.9)	34.3976 (48.9)	25.4038 (36.1)																					
Switzerland	Began in 1991. Revised with the March 2008 Swiss Electricity Supply Law.	<p>Fixed FIT for 25 years</p> <table border="1"> <tr> <td>Size</td><td>< 10 kW</td><td>< 30 kW</td><td>< 100 kW</td><td>> 100 kW</td></tr> <tr> <td>Ground-mounted</td><td>65 (60.4)</td><td>54 (50.2)</td><td>51 (47.4)</td><td>49 (45.6)</td></tr> <tr> <td>Roof-mounted</td><td>75 (69.7)</td><td>65 (60.4)</td><td>62 (57.6)</td><td>60 (55.8)</td></tr> <tr> <td>BIPV</td><td>90 (83.7)</td><td>74 (68.8)</td><td>67 (62.3)</td><td>62 (57.6)</td></tr> </table> <p>2008 CHFct (2009 \$ct) per kWh for installations (NREL)</p>	Size	< 10 kW	< 30 kW	< 100 kW	> 100 kW	Ground-mounted	65 (60.4)	54 (50.2)	51 (47.4)	49 (45.6)	Roof-mounted	75 (69.7)	65 (60.4)	62 (57.6)	60 (55.8)	BIPV	90 (83.7)	74 (68.8)	67 (62.3)	62 (57.6)	<p>Applies reference yield to account for locational variations (similar to Germany's program) (NREL, Gipe).</p>		
Size	< 10 kW	< 30 kW	< 100 kW	> 100 kW																					
Ground-mounted	65 (60.4)	54 (50.2)	51 (47.4)	49 (45.6)																					
Roof-mounted	75 (69.7)	65 (60.4)	62 (57.6)	60 (55.8)																					
BIPV	90 (83.7)	74 (68.8)	67 (62.3)	62 (57.6)																					
Thailand	Officially began in 2006. Small, short-term pricing subsidies had been offered for RE from small & very small power producers (SPP & VSPP) since 1.992, but the programs were not really FITs until 2006, because that was when they made RE generation economic (Ruangrong),	<p>Fixed FIT for 10 years</p> <table border="1"> <tr> <td>Existing Adder</td><td>Additional Adder for southern provinces</td></tr> <tr> <td>Solar (P?)</td><td>8 (23)</td></tr> </table> <p>Baht (\$ct) per kWh for installations in 2009 (Gipe)</p>	Existing Adder	Additional Adder for southern provinces	Solar (P?)	8 (23)	<p>Fixed adder on top of the normal purchase price of electricity received by SPPs from utilities (Ruangrong).</p>	<p>Special adder provided for SPPs/VSPPs in 3 southernmost provinces (Yala, Pattani, Narathivat) to "alleviate investment risks" (Ruangrong).</p>																	
Existing Adder	Additional Adder for southern provinces																								
Solar (P?)	8 (23)																								

[1] <http://www.greentechmedia.com/articles/read/solar-prices-set-in-germany-980/>

Country	Degression	Application Process & Queueing	Program Financing (Klein Table 3.1)	RE Generator Obligations (Klein Table 3.1)	Utility/Grid Operator Obligations (Klein Table 3.1)
Austria	Recalculated each year—does not appear to have an automatic degression (RES-Legal).	Applications granted based on "first come, first served" with limited funding levels and rollover to the next year if they are not used up (RES-Legal). If funds are used up, project can be considered for the next year (RES-Legal).	Ratepayers pay support fee and grid usage fee. Support provided based on voltage of grid connected to (7 levels); average consumers pay 42 €ct/kWh, energy-intensive industries pay 78% of that, and households pay 111% (Klein). 50% of PV FITs must be covered by Länder plant (RES-Legal). Other costs covered by difference between price paid to RE	RE generators cover entire cost of connecting plant to grid (including physical connection and reinforcement if needed). Specific provisions are put in place by each Ländler (RES-Legal). RE plants must be members of an "eco-balance" group (RES-Legal).	Clearing & Settlement Agency (CSA), a state-licensed private enterprise, is obligated to purchase electricity from RE generators and then resell it to electricity traders/suppliers at a legally-set price (RES-Legal).
Denmark	Post-2000 FITs are fixed for existing wind for 10 years + a fixed subsidy for full load-hours; new windmills (2000-2003) receive a fixed FIT for 10 years; both will get TGCs per kWh; post-2003 will receive market price + TGC (Sijm). The status of this program is unclear.	Unknown.	Ratepayers pay a Public Service Obligation tariff on total electricity consumption to their supervising company, which passes it on to RE generators (reduced to 37-39% of the amount for energy-intensive industries) (Klein; RES-Legal). Government subsidy in the form of carbon tax refund, which reached € 87 million by 1998 and led to adoption of TGC program	RE generators pay only cost of connection to nearest physical point of grid; may have to pay system charges for upgrades (Klein).	Purchase obligation (except for onshore wind). Supervising companies pay bonuses to RE generators (RES-Legal).
France	Reduces 2% annually (Gipe).	RE generators must apply to prefect of state department for a certificate of eligibility before they can conclude a contract with grid operators (RES-Legal).	Ratepayers pay a standard amount per kWh, set annually by the Ministry of Energy and included in their grid usage fees, into fonds du service public de la production d'électricité (public service fund) (RES-Legal). Companies using > 240 million kWh annually are exempt from surcharge if they arrange for their own electricity generation on-site (somewhat unclear) (RES-Legal). Fees are transferred to national financial institution (Caisse des dépôts) and then compensates distribution grid operators, subsidizes rural transmission and low income consumers, and pays administrative costs (RES-Legal).	Intermediate step between paying only cost of connection and paying all costs of connection and upgrades (Klein). RE generators must apply to prefect (state's representative in a department) for a certificate of eligibility to receive the FIT; this may be conveyed to a third party (RES-Legal).	Grid operators have a purchase obligation and must conclude contracts with RE generators (RES-Legal). Grid operators are both national, i.e. EDF, and private (RES-Legal).
Germany	Freestanding facilities will degress by 10% starting in 2010 and 9% in 2011; roof systems < 100 kW will	For Special Equalization Scheme (not general FIT), applications must be submitted by June 30 each year and adjusted fees will then take	Power is passed from plant operator to grid operator to transmission system operator to	RE generators pay only cost of connection to nearest physical point of grid; may have to pay	Grid system operators are required to purchase RE and provide priority interconnection

Country	Degression	Application Process & Queuing	Program Financing (Klein Table 3.1)	RE Generator Obligations (Klein Table 3.1)	Utility/Grid Operator Obligations (Klein Table 3.1)
	degress by 8% in 2010 and 9% in 2011, and > 100 kW will degress 10% in 2010 and 9% in 2011. (2009 EEG Payment Provisions). Capacity Trigger: degression increases or decreases by 1% if <1000MW or >1500MW (2009), <1100MW or >1700MW (2010), <1200MW or >1900MW (2011).	effect the following January 1 for approved projects (2008 Act).	utilities to final consumers; equitable division occurs among the TSOs (RES-Legal; 2008 Act). Final pass-through to ratepayers amounts to about 4% of average residential electricity costs and 13% of total electricity price increases, 2002-2006 (EEG Progress Report 2007). Burden is distributed differentially so as to allow energy-intensive, import-based industries--mainly iron/steel, other metals, chemicals, paper--to maintain competitiveness (Id.). Industries with electricity cost as 15% of gross value and > 10 GWh electricity consumption plus	system charges for upgrades. Installations at or above 500 kW are required to measure and record capacity (EEG Progress Report 2007). Generators that produce both RE and fossil fuels are not eligible for FITs under the principle of exclusive use (id.). RE generators must report systems to the Federal Network Agency in order to be eligible for the FIT (RES-Legal).	(EEG Progress Report 2007; 2008 Act). However, priority purchasing can be contractually waived by the RE generator (2008 Act, §8).
Greece	Newest version of FIT introduced in January 2009 and regression will begin in August 2010 (HELAPCO). Small PV systems (< 10 kW) will degress by 5% but it is unclear whether this starts in 2012 or occurs each year until revision in 2012 (HELAPCO residential).	Application filed before August 2010 degression can lock in the higher FIT for 18 months to finalize installation (HELAPCO).	All ratepayers support program equally (no burden reduction for electricity-intensive industries).	RE generators cover entire cost of connecting plant to grid (including physical connection and reinforcement if needed). To be eligible, plant operators must apply for generation license from Minister of Development, whose approval is based on a report from the Regulative Authority for Energy (RES-Legal). PV systems < 150 kW do not require a license (RES-Legal).	Purchase obligation on behalf of grid operator: either the mainland body (DESMIE) or the separate island grid operators (RES-Legal).
					Israel

Country	Degression	Application Process & Queuing	Program Financing (Klein Table 3.1)	RE Generator Obligations (Klein Table 3.1)	Utility/Grid Operator Obligations (Klein Table 3.1)
Italy	Full tariff for systems commissioned between Apr. 11, 2007 and Dec. 31, 2008 (RES-Legal). Payments will be degressed by 2% annually in 2009 & 2010 (RES-Legal).	Cap of 1200 MW PV (RES-Legal). Grippi et al. (IFLR) say 63 MW installed as of Oct. 2008 but GSE reports 418 MW cumulative (338 MW in 2008 alone) (Tilli PPT). PV systems are not eligible for FIT if > 20% funded by public funds, i.e. federal, regional, local, EU (RES-Legal). 2003 law that RE plants (medium/large) should only require a "single permit" that streamlines national, regional, and local procedures and should provide 180-turnaround; implementation is unsatisfactory (Grippi et al., IFLR). Tariff is paid at the start of commercial operation (Grippi et al., IFLR). Application may only be filed after commissioning (GSE Brochure).	All ratepayers support program equally (no burden reduction for electricity-intensive industries) based on "system costs" charge in bill (Klein; RES-Legal). System costs are placed in RE promotion fund maintained by Gestore Servizi Elettrici (GSE), a publicly-owned company with the Ministry of Economics and Finance as the sole shareholder, to pay for FITs (RES-Legal). "Remaining costs are covered by increases in the market price" (RES-Legal).	RE generators cover entire cost of connecting plant to grid (including physical connection and reinforcement if needed) (Klein). Plant operator ("Plant operators are natural persons or legal entities, public buildings or the operators of plants on multi-family buildings and blocks of flats") must apply to Gestore Servizi Elettrici (GSE, the grid operator) within 60 days after commissioning (RES-Legal).	Purchase obligation and prioritization (Klein; Grippi et al., IFLR). GSE purchases RE at subsidized price and then sells it for market price (Grippi).
Ontario, Canada	No automatic degression except in the case of ground-mounted PV, the price of was originally scheduled to decrease by 9% for new contracts once 100 MW is contracted (Mar. 2009 Price Schedule). Revisions removed automatic degression (Revision Presentation).			Pass-through to ratepayers. Economic Connection Test conducted every six months in each province in order to determine the costs to connect a project, which will be passed on to ratepayers (Draft FIT Rules, 4.3(d)).	Provide resource data and evidence that it has the necessary access rights to property in each province in order to pay a fee for its connection to the grid (Draft FIT Rules, 2.1(a)(v)).
Slovenia	Degression of 6.4% per year for PV until 2013 (Feed-in-Cooperation, 7th Workshop).	Unknown.	Paid equally by ratepayers (Held). Governmentally-funded "soft" loans offered for companies,	Forecasting Obligation but no penalty for deviations.	Purchase obligation for fixed tariff only-network operators required to purchase RE from QPs in 10-

Country	Degression	Application Process & Queuing	Program Financing (Klein Table 3.1)	RE Generator Obligations (Klein Table 3.1)	Utility/Grid Operator Obligations (Klein Table 3.1)
		municipalities, etc. and can cover up to 90% of RE investment (but for every 10% subsidy the FIT is reduced by 5%); limited to 40,000 € for PV plants(?) (Held).		year purchase agreements (Held).	
South Africa			Pass-through to ratepayers.	Must obtain license from NERSA. Must obey national standards, including the South African Grid Code & South African Distribution Code (2009 Regulatory Guidelines).	NERSA obligated Eskom, the major South African public utility, to purchase electricity from RE generators (unclear if Eskom will be the single buyer or if RE generators will be able to sell directly to consumers). 30% of new power generation must be bought from IPPs. Will be
Spain	Tariff degresses when 75% of capacity cap is met (?) (Lucas PPT).	Registration requires 2 steps. Preliminary registration: applicant submits documentation on trial operation, access contract with the grid operator, and local/regional permits to the State Secretariat for Energy; cancelled unless definite registration is applied for within 3 months after the RE generator receives notice of the completed preliminary registration (RES-Legal). Grid access requires bank guarantee (Lucas PPT). Definite registration: must apply to be added to the "Special Registry," maintained by the Ministry of Industry, Tourism, and Trade; authority will decide within one month of application to Special Registry (RES-Legal). Date of document submission determines awarding of FIT under capacity cap, i.e. first come first served (RES-Legal). Capacity caps of 371 MW for PV and 500 MW for solar thermal (had to be registered by 9/29/08) (RES-Legal). Payment begins after commissioning (RES-Legal). Once systems		Grid operators pay RE generators and then pass-through costs to ratepayers; each month the grid operator must balance income with expenses due to FITs, and if the result is negative the National Energy Committee (CNE) will make up the difference (RES-Legal). Anticipated annual increase of 0.6% in the average reference electricity tariff due to premiums (unclear) (REP 2005-2010, p.59).	Purchase obligation and prioritization for fixed FIT option only.

Country	Degression	Application Process & Queueing	Program Financing (Klein Table 3.1)	RE Generator Obligations (Klein Table 3.1)	Utility/Grid Operator Obligations (Klein Table 3.1)
		begin to receive the FIT, they must report during the first quarter of each year on their output from the previous year (RES-Legal). Starting in Sept. 2008, PV systems may be audited, and PV must enter a pre-registration queue that determines whether the project is eligible under the cap based on first-come, first-serve (RES-Legal).			
Switzerland		Degression of 8% per year starting in 2010 (Gipe).			
Thailand					

Country	Tariff Revision	Effects on GHG Emissions, Employment, RE Industry	Stakeholder Reactions	Additional Incentives/Subsidies	Additional Notes
Austria	Annual reports from E-Control Ltd. (established by federal government) to the Ministry of Economics and Labour, but revision timeline is unclear (RES-Legal).	Estimated 1,768 tons (2000) & 2,312 (2001) of CO2 avoided through RE support (Eurelectric).	Unknown.	As of 1998, Energy Ministry paid an additional bonus of 100% for 3 years of operation to wind/PV systems built before 1996 (Cerveny). Currently, investment subsidies are only provided for 10-20 MW hydro installations; contract is with the Ministry of Economics and Labour (RES-Legal).	None.
Denmark	Regularly revised by the Danish Energy Authority (DEA) (RES-Legal).	Unknown.	Unknown.	In 1998, no license was required for private systems >25 MW; govt reimbursed RE systems for an energy/carbon tax on top of FIT (Cerveny).	TGC system is not currently in force (RES-Legal).
France	Revised in 2006, 2009.	At least for wind, France's turbine manufacturing industry is small and specialized, so it frequently imports RE components (Szarka).	Fears of "wind rush" led to protects by community groups; however, the rush never emerged (Szarka). Lengthy permitting process and approval turnaround (Szarka). National regulator was concerned that rates were too high, providing windfall profits to developers and harming ratepayers (Szarka).	PV may receive special FITs through a tender process (this may be an older system--Szarka) (RES-Legal). Residential customers can get 50% income tax credit on hardware for PV installation (only for systems < 3 kW), up to 8,000 € per person (16,000 for a couple) + 400 € per child (Gipe, RES-Legal). Reduced VAT of 5.5% for French mainland offered from 1999-2010 for equipment, services, and delivery for RE installation (PV must be for building itself or is otherwise only eligible up to 3 kW) (RES-Legal). Goals of installing 160 MW PV by 2010, 500 MW by 2015, and 5400 by 2020 (Gipe).	Ministry of Energy is responsible for receiving reports and engaging in inspections, and may sanction contract violators by suspension or fine (RES-Legal).
Germany	Revised every 5 years (Gipe).	As of 2006, the PV provisions of the EEG have reportedly contributed to 26,900 jobs and	4 billion Euros in grid expansion necessary; Utilities actively attempted to block RE because	RE generators that receive FITs are explicitly precluded from selling RECs based on the RE they	PV generation in kWh increased by about 400% between 2004 and 2006; from 0.6 billion kWh to 2.2

Country	Tariff Revision	Effects on GHG Emissions, Employment, RE Industry	Stakeholder Reactions	Additional Incentives/Subsidies	Additional Notes
		reduced CO2 by 1.516 million tons out of a 44 million ton reduction in the electricity sector (EEG Progress Report 2007). Overall, EEG created of 236,000 jobs, with a net creation of 67-78,000 jobs after accounting for jobs lost due to RE (id.).	they controlled transmission & purchase mandate displaced conventional generation; attempted to have EU court declare illegal as "state aid"; finally adopted when utility-scale offshore wind farms became feasible (Stenzel).	produce (EEG Progress Report 2007). RE generators may be able to receive emissions credits under the CDM and JI mechanisms of the Kyoto Protocol, but this goes against the intent of EEG (id.). BMU must study ecological impacts of new RE development (id.). Total fees paid under EEG were €5.8 billion in 2006 (id.). Renewable electricity under the EEG cannot be sold more than once (RES-Legal).	billion kWh (EEG Progress Report 2007). EEG was responsible for 13% of the price increases felt by residential households from 2002-2006 (id.). BMU must study ecological impacts of new RE development (id.). Total fees paid under EEG were €5.8 billion in 2006 (id.). Renewable electricity under the EEG cannot be sold more than once (RES-Legal).
Greece	700 MW cap by 2020 (Gipe).	Unknown.	Potentially positive public reception because Law 2773/1999 requires 2% annual fee from electricity sales to grid to go into local development projects (Klein). 3 GW worth of applications filed as of late 2008, but announced new version of program (GreenTech Media).	Grants up to 40% of the cost or 100,000 € (except for rooftop program after 2009) (GreenTech Media). Tendering process for installations > 10 MW (Gipe). Small residential PV eligible for 20% tax deduction of no more than 700 €, only valid for mainland and residence must cover part of its hot water needs with RE, e.g., solar thermal (HELAPCO residential).	None.
Israel	Program is limited to 50 MW or 7 years (2008-2015), whichever comes first (Gipe).			Received over 2000 requests from residential customers interested in installing small PV in the first month after implementation.	20% of the program must be composed of private individuals (Gipe).

Country	Tariff Revision	Effects on GHG Emissions, Employment, RE Industry	Stakeholder Reactions	Additional Incentives/Subsidies	Additional Notes
Italy	To be revised by administrative decree in 2010 (Tilli et al.; RES-Legal).	Estimation that RE will reduce CO2 emissions between 2008-2016 by 1.5 million tons, equivalent to € 167 million based on EU-ETS prices (Tilli et al.)	Investor concerns about lengthy authorization process, higher than European average for turnkey plants, lag time for connection (Iato & Tilli PPT).	2001 tender offered 75% subsidies for < 20 kW roof architectural systems (federal & regional gov funds) but only 23 MW installed between 2002-05 (Tilli et al.). PV < 20 kW are eligible for net metering (scambio sul posto) (RES-Legal). Other than with the law (RES-Legal), TERNA is Italy's national transmission system operator (GSE Brochure). By end of 2008, commissioned PV capacity was 20% fully-integrated, 53% partially-integrated, and 27% non-integrated (Iato & Tilli PPT).	GSE is the "implementing body" for RE programs and trades in the power exchange (IPEX) power acquired under both FIT and ritiro dedicato schemes (GSE Brochure). GSE may inspect RE plants and reclaim FITs if they do not comply with the law (RES-Legal).
Ontario, Canada	To be reviewed every 2 years, beginning 1 year after the launch of the program (Draft FIT Rules, 8.1).	Estimates that PV provides 600-1000 jobs and solar thermal provides another 180 (pre-FIT).	Stakeholders sought protection against inflation--led to examination of different methods of FIT adjustment; wanted BIPV to be included within roof-mounted PV (Revisions Presentation).	RESOP has been supplanted by FIT; Home REFIT being implemented for residential projects under 10 kW (FAQ).	PV projects may not exceed 10 MW. Explicitly prohibits dividing larger projects into smaller components in order to achieve higher contract prices, allowing OPA to reject all contracts or provide the contract price that would have gone to a single project (Draft FIT Rules, 5.4(e)).
Slovenia	O&M and investment costs are revised every 5 years (Feed-in-Cooperation, 7th Workshop).	Unknown.	Transmission operators are required to purchase energy by all QPs connected to their grid; but		None.

Country	Tariff Revision	Effects on GHG Emissions, Employment, RE Industry	Stakeholder Reactions	Additional Incentives/Subsidies	Additional Notes
South Africa	To be reviewed every year for the first five years after implementation, and at the end of that period, every third year. May be able to cap the capacity subsidized per year (2009 Regulatory Guidelines).	Program has only just begun.	Stakeholders and officials were concerned about simplicity for the first few years of the program (2009 Regulatory Guidelines). Concerns about producer surplus, RET differentiation. Price chosen for wind (1.25 R/kWh compared to the 0.66 R/kWh proposed) indicates that regulator listened	All electricity generators (IPPs) that are connected to the grid have to follow set criteria to receive a Generation License, meaning that South Africa was able to create a streamlined process for small RE generators (< 10 MW) (2009 Regulatory Guidelines). Regulator must	
Spain	Capacity Trigger (150 MW PV, 200 MW solar thermal). Support levels for new plants revised every 4 years since 2010, ensuring reasonable profitability, once 85% of capacity is achieved (Gonzalez).		Utilities were not in charge of transmission and so began to engage in both largescale and DG-scale RE deployment, as well as encouraging the govt to ratchet up the nation's goals. Gonzalez characterized the public support as very high, largely b/c ratepayers do not realize how much they're being charged. Government very supportive because of the possibility of increased employment (Gonzalez). Cap/floor added to prevent windfall profits to RE (Held).	Tax reduction of 6% of investment costs available for RE with additional reductions for PV that is mounted on top of the building or used to meet at least part of building's energy needs (RES-Legal). The reduction will decrease to 4% in 2009 and 2% in 2010 before being discontinued in 2011 (RES-Legal). Subsidy is funded by the federal government (RES-Legal).	

Country	Tariff Revision	Effects on GHG Emissions, Employment, RE Industry	Stakeholder Reactions	Additional Incentives/Subsidies	Additional Notes
Switzerland	To be reviewed every 5 years.				
Thailand	Adjusted in 2007 because of lack of wind/solar participation; as of 2008, no wind/solar projects had been undertaken (Ruangrong).		RPS enacted in 2004. Government money from Energy Conservation Fund will be provided to RE projects (Ruangrong).	"Adder Bidding" available for RE other than wind & solar (e.g. biomass), and awards 0.30 Baht/kWh via competitive bid, up to 300 MW capacity.	

Country	Type of Market	Residential Electricity Cost per kWh				Industrial Electricity Cost per kWh				EU Renewables Goals / Other Goals				Actual RE Generation (2005)			
		2005	2006	2007	2008	2006	2007	2010	2020	RE Generation (GWh)	Solar Consumption (GWh)	RE % of Electricity Consumption	Solar % Electricity Consumption				
Austria	Fully Deregulated	13.35 €ct	12.78 €ct	14.09 €ct	6.74 €ct	7.2 €ct	7.99 €ct	78.10%	34%	39300	15	57.40%	0.04%				
Denmark	Fully Deregulated	21.55 €ct	22.31 €ct	24.25 €ct				29%	30%	10600	0	28.20%	0				
France	Mostly Deregulated	11.62 €ct	11.62 €ct	11.74 €ct		5 €ct	5.08 €ct	21%	23%	58400	15	11.30%	0.03%				
Germany	Fully Deregulated	16.55 €ct	16.96 €ct	18.06 €ct	7.99 €ct	8.97 €ct	9.79 €ct	12.50%	18% (30%)	64700	1282	10.50%	1.98%				
Greece	Partially Deregulated	7.8 €ct	8.11 €ct	8.53 €ct	5.41 €ct	5.6 €ct	5.85 €ct	20.10%	18%	6400	1	10%	0.02%				
Israel								Goal of 20% of electricity from RE by 2020									
Italy	Mostly Deregulated	18.62 €ct	20 €ct	21.97 €ct	9.65 €ct	10.9 €ct	11.66 €ct	25%	17%	49800	31	14.10%	0.06%				
Ontario, Canada	Restructuring for province began in 1998	5.0-5.8 CAN-ct	5.4-6.7 CAN-ct	5.0-6.2 CAN-ct	5.7-6.6 CAN-ct in 2009				GHG emissions 6% below 1990 levels by 2014	GHG emissions 6% below 1990 levels by 2014	GHG emissions 15% below 1990 levels by 2014	GHG emissions 15% below 1990 levels by 2014					
Slovenia	Mostly Deregulated	9.24 €ct	9.4 €ct	9.68 €ct	5.31 €ct	5.6 €ct	6.8 €ct	33.60%	25%	3600	0	24.20%	0				
South Africa		6.1 cents (USD)	5.9 cents (USD)					Goal of 10,000 GWh RE generation by 2013									
Spain	Fully Deregulated	10.07 €ct	10.52 €ct	11.31 €ct	6.08 €ct	6.39 €ct	7.19 €ct	29.4% (30.3%)	20%	4400	78	15%	1.77%				
Switzerland																	
Thailand		7.2 cents (USD)						Goal of 8% RE mix-3276 MW RE in 2011 (from 2061 MW in 2006, of									

Country	Tariff Application	Tariff Rates	Details (cost calculation, degression, etc.)	Additional Subsidies/Notes
Algeria	Created in 2004 and applies to concentrated solar power; allows CSP plants to mix outputs with natural gas.	Unclear. Appears to allow some negotiation of tariff--recent contract for CSP grants 5 cent/kWh based on 5% solar share.	Premium pricing based on the percentage of solar share in the plant output, compared to natural gas; a 10% share earns a 100% FIT and a 20% share can earn a 200% FIT	Goal to cover 5% of electricity needs with RE by 2010 (or 2015?).
Argentina	Unknown which RE sources it applies to.	\$5 per MWh (US dollars) granted to RE sources.	Unknown.	RE sources are approximately 8% of electricity consumption in 2005. RPS goal of 8% by 2016. Some capital subsidies and investment tax credits granted. Currently, 4 MW solar installed.
Belgium (Flanders)	Applies to wind only.	4.1 USD-cents/kWh for wind in 2008 (Gipe). FIT is guaranteed for the entire lifetime for small PV projects (< 3kW) (Eurelectric); in 1997 there were 3 different kinds of rates--one for intermittent systems (wind & PV) and two for reliable RE systems, depending on whether they fed into the grid constantly or only during peak times (Cerveny).	Fixed FIT paid with a Public Service Obligation (Annex 2). Premium on top of market rate (Gipe). Purchase obligation for distributors & generators pay only cost of connection to nearest physical point of grid, maybe system charges for upgrades (Klein).	Goals for all of Belgium to achieve 6% RE in electricity mix by 2010 and 13% by 2020. National govt controls transmission but states control RE policy--Walloon & Flanders provide grants & tax relief to RE projects (Cerveny).
Brazil	Does not appear to apply to solar.	Unknown.	Unknown.	Unknown.
Czech Republic	Applies to solar, wind, hydro, biomass, biogass, geothermal. Law passed in 2005 & price schedule set by Energy Regulatory Office in 2007.	CCM is actual cost of generation, noting that risk is higher for the premium option. PV can receive the FIT for 20 years. As of 2008, the fixed rate was 13,460 CZK/MWh (73.5 \$ct/kWh) and the premium rate was 12,650 CZK/MWh (69 \$ct/kWh).	Fixed or premium available--in order to be eligible, RE generator must provide contract with either grid operator or market participant/supplier. Payment is made by the grid operator with no provisions for pass-through. Tariffs degress each year but may be no less than 95% of the tariff valid at time of recalulation.	Up to 50% of eligible costs of RE installations (PV < 5 kW) may be state-subsidized (2007). EU provides ECO-ENERGY funding in the form of grants and soft loans for RE projects in member states. Income from RE generation is not taxable for taxable persons.
Estonia	< 100 MW plants for PV, wind, geothermal, hydro, biomass, biogas	CCM is actual cost of generation (including energy costs, operation, investment, etc.). Lasts 12 years from date of commissioning (when plant reaches 80% of its capacity). Fixed rate for all plants is 115 Senti/kWh (10.4 \$ct/kWh). Premium rate for all plants is 84 Senti/kWh (7.6 \$ct/kWh).	Fixed or premium available. For fixed FIT, grid operator appoints a supplier for the RE generator, so essentially negotiates bilateral contracts. Premium appears to be the same system and the grid operator pays the RE generator under both schemes. Costs are passed through equitably to ratepayers.	Unknown.
Finland	FIT only applies to electricity generated from Finnish peat in conventional and CHP plants.	Based on production costs.	Paid by grid operator. Adjusted monthly depending on the price of electricity. Passed on through ratepayer via surcharge.	Companies, municipalities, and communities can receive up to 40% subsidy for PV investment projects. PV is not eligible for a "tax aid" system in which RE plants receive payment per kWh based on tax on electricity generation.
Hungary	Applies to PV, wind, geothermal, hydro, biomass, biogas.	PV had a single standard tariff of 26.46 HUF/kWh (13.6 \$ct/kWh) in 2008 and FIT cannot exceed payoff time of the systems.	RE plant operators have a claim starting at "commencement of commercial activity." Electricity traders obliged to enter into contracts with grid operators. Fixed payment differentiated by technology, time of day; adjusted annually for inflation.	Suppliers charge ratepayers and then compensate grid operators who pay RE plant operators. Can receive EU subsidies, and federal subsidies up to 25% with the possibility of additional loans, for RE installations on existing buildings.

Country	Tariff Application	Tariff Rates	Details (cost calculation, degression, etc.)	Additional Subsidies/Notes
India	Applies to PV (unclear what else, if anything).	15 Rupees/kWh (30 \$ct/kWh); in effect for first 500 MW of projects.	Installations capped at 10 MW per state and 5 MW per developer (potentially unattractive to solar thermal). Considering expanding overall cap to 1 GW.	Goals of 20 GW by 2020, 100 GW by 2030, and 200 GW by 2050. Individual states have additional subsidies.
Ireland	Wind, biomass, and hydro--not solar.	Considers market price (adjusted to CPI), price of best new entrant price (adjusted annually), and initial costs of RE electricity. Duration depends on PPA but < 15 years. 5.7-7.2 €ct/kWh support.	Contract is between the RE plant operator and the final supplier but the TSO, Eirgrid, pays the FIT.	Funded by tax paid by consumers to TSO.
Kenya	Wind, biomass, and hydro--not solar.	Unclear.	Bill introduced in 2008. 15 years duration and up to 150 MW capacity in each category. Offers 9 US cents/kWh for wind farms < 50 MW	Unknown.
Latvia	Wind, biomass, biogas, and hydro-not solar.	10 years to unlimited duration. Pass-through to consumers.	Award of FIT eligibility entitles RE plant operator to sell at predetermined price to public trader. May be adjusted regulatorily, by tender, or according to natural gas prices.	Unknown.
Lithuania	Applies to a maximum capacity of 1.4 GW solar. Also wind, biogas, biomass, hydro.	No CCM or adaptation criteria set. Capacity cap may be adjusted year to year based on actual generation. Unlimited duration. 0.20-0.24 LTL/kWh payments (but solar prices not listed). Passed through to ratepayers.	RE plant operator contracts with supplier (and may do it for price below FIT). Transmission grid operator must pay RE generator, or distribution grid operator if there's an intermediary step, and the supplier if they pay more than the statutory minimum price.	Unknown.
Luxembourg	Applies to PV under 1 MWp commissioned after 1/1/08. Also wind, biomass, biogas, hydro.	Designed to provide for profitable operation; degresses but does not adjust. Guaranteed for 15 years from day of 1st feed. For PV (2008), 37 €ct (52 \$ct) to 42 €ct (59 \$ct) per kWh depending on installation size.	Contracts are between grid operator and RE plant and must be approved by regulatory authority. Cost is borne by grid operator and is not passed through.	From 2008-12, PV projects < 30 kW can earn a state subsidy of 30% of cost of installation (up to 1,650 €). 40% subsidy may still be available for larger projects. Income from sale of electricity from 1-4 kW PV systems is tax-exempt as non-commercial.
Macedonia	Applies to PV, small hydro, wind, and biomass/biogas.	For PV ≤50 kW, 46 €ct/kWh & for PV >50 kW, 41 €ct/kWh.	Purchase obligation and 20-year duration.	Unknown.
The Netherlands	PV, wind (on & offshore), biomass.	Unknown.	New scheme ("SDE") as of April 2009; financed by treasury with capped total budget (2/3 of long-term predicted electricity price).	Goal of 70-90 MW PV, 2008-2011.
Philippines	Unknown.	Unknown.	Unknown.	Passed 2008 Renewable Energy Act.
Portugal	PV, solar thermal, wind, biogas, hydro.	Calculated based on complicated avoided costs formula. As of 2007, average FITs of 450 €/MWh for PV < 5kW, 317 €/MWh for PV > 5kW, 273 €/MWh for solar thermoelectric < 10 MW, 470 €/MWh for microgen PV < 5kW, 355 €/MWh for microgen PV > 5 kW.	Policies began in 1988; most recently revised in 2007 to add FITs for new technologies (like solar thermal). Differentiated due to day/night; adjusted for CO2 emissions avoided, inflation. Duration of 15 years OR 21 GWh/MW capacity for PV FITs.	Goal of 45% of electricity consumption from RE by 2010. Estimated 20,000 jobs and reduction of 11 Mt/year CO2.

Country	Tariff Application	Tariff Rates	Details (cost calculation, depreciation, etc.)	Additional Subsidies/Notes
Prince Edward Island, Canada	Only viable for large-scale wind (because the payment is the profit between RE generation cost and market price).	Market rate of electricity. About 5.6 USD-cents/kWh for 20 years for installations > 100 kW (Gipe).	Fixed rate requiring distributors to pay RE generators at least the market rate of electricity. Renewable Energy Act (2004) established an RPS of 15% RE by 2010 and a Renewable Energy Tariff (RET) until the RPS is achieved.	Status of program unclear.
South Korea	Applies to PV, wind, small hydro, and landfill gas, differentiated by size.	In 2005, provided approximately 77 cents/kWh for 15 years for PV > 3 kW and 45 cents/kWh for 20 years for PV > 3 kW after 2010 (with buyback or 70% rebate for installations < 3 kW) (Gipe).	Unknown.	1300 MW goal by 2012.
Taiwan	Applies to solar and other types of RE, but not finalized.	Pricing not yet finalized--solar companies want NT\$8/kWh (24.2 cents USD) but government-owned Taiwan Power Co. only wants to pay NT\$2/kWh (6 cents USD)	Renewable Energy Development Act of 2009. Details not yet set, but expected to begin at the late 2009/early 2010. No capacity cap expected.	Developed to encourage domestic market since Taiwan has solar cell manufacturers that ship overseas (shipped about 900 MW in 2008). Goal of 10 GW RE in 20 years.
Uganda	Applies to hydropower and cogeneration.	Higher for years 1-6 than for 7-20	Separated by peak, off-peak, and shoulder. Granted for 20 years.	Unknown.
Sri Lanka				
Indonesia				
Ecuador				

ONTARIO, CANADA: Price Schedule (Revised May 2009) (Figures in CAN-cts/kWh)				
Renewable Fuels	Capacity Range	Proposed Price	Aboriginal Adder	Community Adder
Rooftop or Ground-Mounted PV	$\leq 10 \text{ kW}$	80.2	No adder for rooftop PV.	
Rooftop PV	$> 10 \text{ kW} \leq 250 \text{ kW}$	71.3		
Rooftop PV	$> 250 \text{ kW} \leq 500 \text{ kW}$	63.5		
Rooftop PV	$> 500 \text{ kW}$	53.9		
Ground-Mounted PV	$> 10 \text{ kW} < 10 \text{ MW}$	44.3	1.5	1.0
On-Shore Wind	Any size	13.5	1.5	1.0
Off-Shore Wind	Any size	19.0		
Waterpower	$< 10 \text{ MW}$	13.1	0.9	0.6
Waterpower	$> 10 \text{ MW} < 50 \text{ MW}$	12.2		
Biomass	$\leq 10 \text{ MW}$	13.8	0.6	0.4
Biomass	$> 10 \text{ MW}$	13.0		
Biogas	$\leq 500 \text{ kW}$	16.0	0.6	0.4
Biogas	$> 500 \text{ kW} \leq 10 \text{ MW}$	14.7		
Biogas	$> 10 \text{ MW}$	10.4		
Landfill Gas	$\leq 10 \text{ MW}$	11.1	0.6	0.4
Landfill Gas	$> 10 \text{ MW}$	10.3		

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