

PowerSpout Retail Price List 2014

PowerSpout PLT, TRG and LH





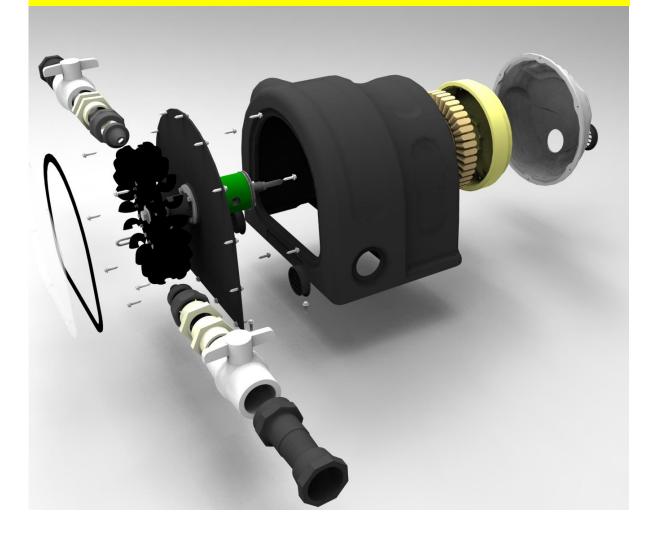


For technical information refer to the PowerSpout technical specifications document

PowerSpout Pelton Products (PLT)



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Complete Pelton (PLT) turbines	1	2	3	4	5	Global freight
PowerSpout PLT (14/28/40/56/80/170/200/350)		1551	1504	1459	1416	*1
PowerSpout PLT (56C,100C,170C,200C) incl Klampit	1899	1842	1787	1733	1681	*1
PLT twin pack< 300W, 10-100m,<2I/s (PLT 40/56/80)	n/a	999	n/a	899	n/a	*1 & *3
PLT twin pack< 600W, 10-100m,<2I/s (PLT 40/56/80)	n/a	1199	n/a	1099	n/a	*1 & *3
PLT twin pack< 900W, 10-100m,<2I/s (PLT 40/56/80)		1399	n/a	1299	n/a	*1 & *3
PowerSpout PLT Accessories		2	3	4	5	Global freight
Manifold 10 Bar (excludes connector fitting to your pipe)		339	328	319	309	10 kg extra applies
Camlocks 6 bar - 4 sets - for DIY flexible 2- pipe manifold	99	96	93	90	88	*2
Tool Kit		96	93	90	88	*2
PowerSpout PLT Common Spare Parts	1	2	3	4	5	Global freight
Glass filled nylon Pelton rotor		193	187	182	176	*2
PowerSpout glazing and neoprene seal		48	46	45	43	*2
PowerSpout top cap and seal Kit		23	23	22	21	*2



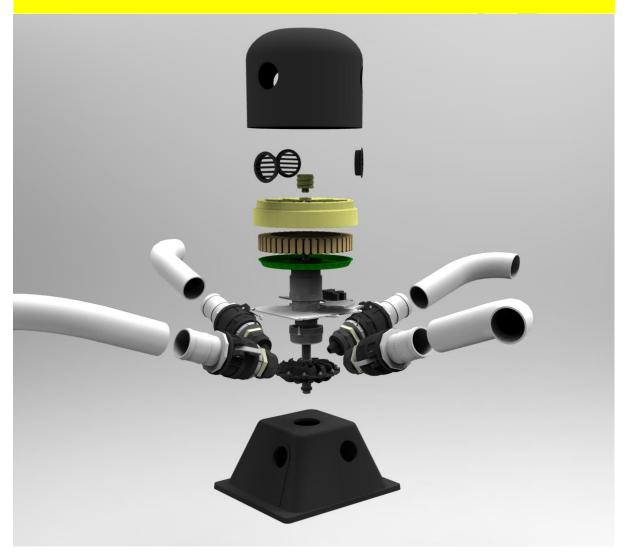
PowerSpout Turgo Products (TRG)







1	2	3	4	5	Global freight	
1599	1503	1413	1328	1248	*1	
1899	1785	1678	1577	1483	*1	
n/a	899	n/a	799	n/a	*1 & *3	
n/a	1099	n/a	999	n/a	*1 & *3	
n/a	1299	n/a	1199	n/a	*1 & *3	
1	2	3	4	5	Global freight	
399	387	375	364	353	10kg extra applies	
1	2	3	4	5	Global freight	
199	193	187	182	176	*2	
	1899 n/a n/a n/a 1 399	1899 1785 n/a 899 n/a 1099 n/a 1299 1 2 399 387 1 2	1599 1503 1413 1899 1785 1678 n/a 899 n/a n/a 1099 n/a n/a 1299 n/a 1 2 3 399 387 375 1 2 3	1599 1503 1413 1328 1899 1785 1678 1577 n/a 899 n/a 799 n/a 1099 n/a 999 n/a 1299 n/a 1199 1 2 3 4 399 387 375 364 1 2 3 4	1599 1503 1413 1328 1248 1899 1785 1678 1577 1483 n/a 899 n/a 799 n/a n/a 1099 n/a 999 n/a n/a 1299 n/a 1199 n/a 1 2 3 4 5 399 387 375 364 353 1 2 3 4 5	



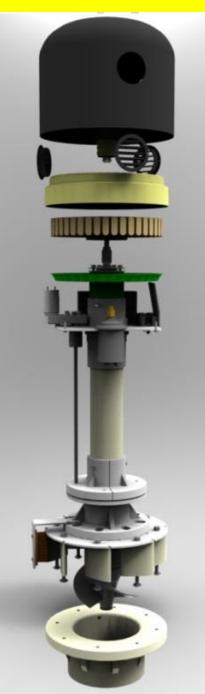
PowerSpout Low Head Products (LH)



Complete Low Head (LH) turbines	1	2	3	4	5	Global freight
PowerSpout LH (150/250/400)	1599	1551	1504	1459	1416	*1
PowerSpout LH Pro (150/250/400)	1999	1939	1881	1824	1770	*1
PowerSpout High Power upgrade up to 1W/rpm	299	290	281	273	265	*1
Draft tube 200-250mm PVC pipe adaptor and joiner	129	125	121	118	114	extra
PowerSpout LH Common Spare Parts	1	2	3	4	5	Global freight
LH spare parts kit	79	n/a	n/a	n/a	n/a	*2
LH Pro spare parts kit	119	n/a	n/a	n/a	n/a	*2
Expanding bolt		n/a	n/a	n/a	n/a	*2







PowerSpout Generic Upgrades, Parts and Freight Surcharges PLT/TRG/LH

PowerSpout Playandes					_	Clabal for take		
Generic PowerSpout Upgrades	1 199	100	3	4 199	5 199	Global freight *1		
High current surcharge for turbines > 32 amp rating < 50	299	199	199			*1		
PowerSpout High Power upgrade up to 1W/rpm	149	290 149	281	273 149	265	*2		
Grid tied EMC filter upgrade	20	20	149 20	20	149 20	*2		
MC4 type connectors on 2m cable upgrade (2xM & 2xFM)	20	20	20	20	20			
Generic PowerSpout Accessories				l				
PowerSpout complete spare parts kit	999	999	999	999	999	surcharge applies		
Bearing block, shaft and seal kit complete	299	290	281	273	265	*2		
Bearing set high quality	63	61	59	57	56	*2		
Klampit 75/120/240	299	290	281	273	265	*2		
PLT/TRG jet pack (5 jets)	40	40	40	40	40	*2		
Clamp Meter DC	99	96	93	90	88	*2		
Pressure gauge (supplied with turbine except twin packs)	40	40	40	40	40	*2		
10/16/20/25/32/40/50 amp 2-pole 500VDC din breaker	40	40	40	40	40	*2 *2		
90/110/150mm 2-way saddle manifold (6-bar)	99	99	99	99	99	=		
90/110/150mm 4-way saddle manifold (6-bar)	189	189	189	189 99	189	*2 *2		
Camlock set for 2-jet flexible pipe manifold	99 30	99 30	99 30	30	99 30	*2		
Pressure fittings for measuring pressure drops	30	30	30	30	30	*2		
PowerSpout PLT Generator parts								
Smart Drive stators standard series	199	193	187	182	176	*2		
Smart Drive stators cog free H.P. series	299	290	281	273	265	*2		
Smart Drive Rotor type 1	69	67	65	63	61	*2		
Smart Drive Rotor type 2	99	96	93	90	88	*2		
Smart Drive Rotor type 2 high power	159	154	150	145	141	*2		
Smart Drive Rotor type 3	99	96	93	90	88	*2		
Smart Drive Rotor type 4 high power	159	154	150	145	141	*2		
Generic PowerSpout Auto Grease Accessorie								
Automatic grease lubricator and fitting	100	97	94	91	89	*2		
Automatic grease lubricator only	80	78	75	73	71	*2		
Automatic grease fitting and 3 canister	259	n/a	n/a	n/a	n/a	*2		
PowerSpout Generic Regulation								
Air diversion load 48v 30-35 amp	299	299	299	299	299	*2		
Air diversion load 12 or 24v 30-35 amp	149	145	140	136	132	*2		
Twin Air diversion loads 12/24/36/48v 123W to 1.44kW	199	193	187	182	176	*2		
Water diversion element 12/24/48 30-35 mp - 1.25BSP	399	387	375	364	353	*2		
Water element 0.7, 1.5, 9.1, 28.6 ohm - 1" BSP/NPT	90	87	85	82	80	*2		
40 amp DC relay for MPPT aux diversion	149	145	140	136	132	*2		
Generic DHL Freight Surcharges								
Global freight DHL surcharge zones 1-6	0	0	0	0	0	Refer to zone table		
Global freight DHL surcharge zone 7	75	75	75	75	75	Refer to zone table		
Global freight DHL surcharge zone 8	150	150	150	150	150	Refer to zone table		
Global freight DHL surcharge zone 9	225	225	225	225	225	Refer to zone table		
DHL Freight Insurance up to \$1000	25	25	25	25	25	Minimum charge		
DHL Freight Insurance up to \$2000	50	50	50	50	50	\$5/\$200 of goods		
DHL remote service fee	30	30	30	30	30	*4		
DHL 10 kg freight (zone fee is additional)	120	120	120	120	120	Refer to zone table		
DHL 20 kg freight (zone fee is additional)	200	200	200	200	200	Refer to zone table		
DHL 30 kg freight (zone fee is additional)	250	250	250	250	250	Refer to zone table		

Notes *:

- Included to common (non remote) destinations, refer to freight guide, surcharges apply to destinations in zones 7,8 & 9.
- Included if purchased at time of PowerSpout purchase <u>and</u> mass <30kg <u>and</u> fits in same carton else extra charge applies.
- 3. 1-year warrantee applies, no extras allowed as twin packs are at the maximum allowed weight, all twin pack turbines must be identical. Specification and warrantee terms are different for twin pack turbines.
- 4. A remote freight surcharge is applied per shipment where the delivery destination is remote. Remote is defined as islands and highlands; or a post code/zip code that is difficult to serve; or a suburb/town that is distant, inaccessible or infrequently served. As a rule of thumb, if the address is more than 1 hour's drive from a small town (population > 10,000) then the remote surcharge fee applies.

This price list excludes GST, VAT, local taxes and import duties that may apply in your country. Price list expires 1st Jan **2015.** Contact your country/local dealer for a delivered price in your country. Prices advertised on global dealer web sites may vary due to local taxes, duties, margins and exchange rates. Discounted volumes and twin packs are for <u>identical units</u> shipped at the same time to the same destination. Minimum retail sale value \$250 US per order.

Common PowerSpout Accessories PowerSpout complete spare parts kit Shipping weight 13kg You can order a complete spare parts kit at the same time you order your PowerSpout turbine (single orders only), an smaller extra shipping fee may apply. If ordered after your turbine has been a shipped full extra freight charge will apply. This spare parts kit includes all the spare parts for your turbine as shown in the picture but excludes the casing and any electronic components. For LH turbines it also excludes the propeller. Bearing block and shaft complete Shipping weight 2kg This part enables a quick bearing service in the event of a bearing failure or just to reduce bearing service time. We can ship for free at the same time as your turbine. Picture shows PLT bearing block, TRG and LH are similar. SKF(or close equivalent) front and back bearings Shipping weight 0.5kg Top quality sealed bearings: PLT: front 6205-2Z OD 52mm ID 25mm, rear 6005-2Z OD 47mm ID 25mm. TRG/LH: front and rear 6005-2Z OD 47mm ID 25mm. Sealed bearings do need to be re-greased at times as hydro turbines run 24/7 and see very high cycle rates. The PowerSpout is provided with a regreasing nipple so this can be easily done with the turbine in operation. Refer to manual for re-greasing schedule. Lower quality and cost bearings can be used where the turbine is operating below 500W and 1000 rpm. PowerSpout Jet Pack – 5 jets Shipping weight 0.5kg If you need more jets, these jet inserts are for hole sizes from 2-30mm. NB: The jets for our green case hydro are different, order green case hydro jets. If you have made your own hydro turbine and cannot remember which type you ordered please note: The PowerSpout jets face mount on the jet holder

The Green case type fit into a recessed diameter in the jet holder



Clamp meter

Shipping weight 2.0kg

Nobody living off the grid on a battery based inverter system should be without a DC clamp meter.

It has both 40 and 400 amp DC scales plus all the normal features of a multimeter



PowerSpout Pressure gauge Shipping weight 0.5kg

Pressure gauges are supplied in both kPa and PSI scales. Gauges are available in 100, 200, 500, 750, 1000 and 2000 kPa ranges and their equivalent PSI scales. All gauges are oil filled stainless steel construction with a 1/4 inch BSP parallel threaded fitting.



DC breaker 0.3kg

Non polarised 2-pole (500 VDC) dc breaker. Common sizes available: 10, 16, 20, 25, 32, 40, 50 and 63 Amp



PLT Manifold

Shipping weight 5.0kg

This 2-jet manifold is made from 75mm OD PVC pipe (65mm ID) and is rated for 100m head. It is the quickest and tidiest way to connect your pipe line to your new PowerSpout.

The connector on the end of the manifold is supplied as an extra and the size of this depends on the pipe size you have used in your installation. We can supply the correct pipe connector and mac-union for your manifold and turbine to ensure your install gets off to a good start.



4 way saddle

Shipping weight 5.0kg

These are available to order with your turbine for pipes with outside diameters of:

- 160mm
- 110mm
- 90mm

You can install as many as are needed. They are double sided so provide 4 x 50mm BSP male threads per set.

Bolts, valves and fittings shown are not provided, buy these locally. Free freight if they fit in the same box with your turbine.



2 way saddle

Shipping weight 2.5kg

These are available to order with your turbine for pipes with outside diameters of:

- 160mm
- 110mm
- 90mm

You can install as many as are needed. They are double sided so provide 2 x 50mm BSP male threads per set.

Bolts, valves and fittings shown are not provided, buy these locally. Free freight if they fit in the same box with your turbine.



Camlock set for 2-jet flexible pipe manifold Shipping weight 2kg

These camlock sets are great for connecting flexible 50mm (2") ID hoses to your turbine. This enables your turbine to be quickly removed from the pipework for servicing. 6 Bar rated, male threads supplied unless advised otherwise.



TRG PVC "Y" manifold – 4 take off Shipping weight 10kg

These 4 way manifold kits are suited to TRG sites up to 20m. Fittings will glue directly onto 160mm or 200mm PVC OD pipe.

Freight surcharge applies. Client will need to glue this manifold together, only parts supplied.



Pipe fitting to suit MDPE pipes Weight 0.5-2.0kg

We normally hold in stock 6 bar fittings as follows:

- 63mm OD to 2" BSP thread
- 75mm OD to 2.5" BSP thread
- 90mm OD to 3" BSP thread
- 110mm OD to 4" BSP thread



Pressure fittings for measuring pressure drops Weight 0.5kg

This kit allows you to add 5 tapping points to measure the pressure at various points in your system. Can be helpful in locating issues with your pipe line.



PLT Tool Kit Shipping weight 1.0kg

Remember to order a tool kit with your new PowerSpout PLT turbine, it comes with:

- Knife for jet sizing
- Taper gauge for jet sizing
- Small adjustable spanner
- 8, 10, 11, 12 mm socket drives
- General screw driver bits
- Plumbing thread sealing tape
- Spare bearing sets (non SKF)
- Large Jet spanner
- Optimization packing washers



Automatic grease can upgrade Shipping weight 1.0kg

This optional upgrade on all PLT/TRG and LH turbines is strongly recommended as it provides 24/7 lubrication and helps to combat bearing corrosion caused by condensation.



Automatic grease can upgrade (3 cans) Shipping weight 2.0kg

This upgrade comes with a 3 year bearing life warrantee upgrade, provided they are used as per our manual advice.



Smart Drive Generator Parts

Smart Drive stators standard series 4 kg

Fully reconnected to suit your application, generally they are capable of up to 0.7W/rpm in the voltage range 12-500V up to 1200Watts. Will operate with type 1 or type 2 rotors.

Capable of up to 1.0W/rpm when fitted with a type 2 high power rotor and in the voltage range 48-500V up to 1600 Watts and cog free.

- 100-14S-1P star or delta
- 100-7S-2P star or delta
- 100-2S-7P star or delta *
- 80-14S-1P star or delta
- 80-7S-2P star or delta
- 80-2S-7P star or delta*
- 60-14S-1P star or delta
- 60-7S-2P star or delta
- 60-2S-7P star or delta*



Smart Drive stators cog free series 4 kg

Fully reconnected to suit your application, generally they are capable of up to 0.7W/rpm when fitted with a type 3 rotor and in the voltage range 24-500V up to 1200 Watts and cog free.

Capable of up to 1.0W/rpm when fitted with a type 4 high power rotor and in the voltage range 48-500V up to 1600 Watts and cog free.

- 60dc-12S-1P star or delta
- 60dc-6S-2P star or delta
- 60dc-4S-3P star or delta
- 60dc-3S-4P star or delta
- 60dc-2S-6P star or delta*
- 60dc-1S-12P star or delta*
- 60dc-12S-1P star or delta*
- 60dc-12S-1P star or delta*



Smart Drive Rotor type 1 2 kg

This older type rotor has a similar magnet strength of the type 2 that replaced it, but has a more 'coggy' action.

This type 1 rotor is commonly used on all the 60, 80 and 100 series stators. Do not use it on the 60dc series it will not work.



Smart Drive Rotor type 2 2 kg

This type 2 rotor is commonly used on all the 60, 80 and 100 series stators. Do not use it on the 60dc series it will not work.



Smart Drive Rotor type 2HP (high power) 2 kg

This type 2HP rotor is commonly used on all the 60, 80 and 100 series stators. Do not use it on the 60dc series it will not work. This rotor can deliver up to 1W/rpm. This rotor is easy to confuse with a type 3 as they look identical.



Smart Drive Rotor type 3 2 kg

This type 3 rotor is commonly used on all the 60dc series stators. Do not use it on the 60, 80 and 100 series it will not work.



Smart Drive Rotor type 4HP (high power) 2 kg

This type 4 rotor is commonly used on all the 60dc series stators. Do not use it on the 60, 80 and 100 series it will not work. This rotor can deliver up to 1W/rpm.



PowerSpout BE Regulation

Air diversion load Weight 4kg

Diversion load for use with diversion load regulator or for solid state DC relays via MPPT regulators.

Specifications:

48 VDC

30-35 amp

Special diversion loads can be made on request to suit your voltage and diversion amps for an extra charge.



Air diversion load

Weight 2kg

Diversion load for use with diversion load regulator or for solid state DC relays via MPPT regulators.



12VDC or 24 VDC

30-35 amp



Twin Air diversion resistors

Weight 4kg

These resistors are 0.8 Ohm rated for 1kW each, when used singularly or in parallel /series they can deliver:

- 12 vdc battery bank 123W, 245W & 490W
- 24 vdc battery bank 314W, 627W & 1254W
- 36 vdc battery bank 706W & 1441W
- 48 vdc battery bank 1250W



Water diversion element Weight 0.5kg

Water element 0.7, 1.5, 9.1, 28.6 Ohm - 1" BSP/NPT



40 amp solid state DC relay for aux diversion Weight 0.5kg

When mounted on a large heat sink this DC relay can switch up to 40 amp at 12/24/35/48 vdc. Many MPPT regulators have AUX relays that can drive this DC relay.

PowerSpout Extended Warrantee Service PLT/TRG/LH

Standard Warrantees are:

PLT <1200W 3 years
PLT <1600W 2 years
PLT Twin Pack 1 year

TRG <1600W 2 years
TRG Twin Pack 1 year

LH <1600W 2 years LH Pro <1600W 2 years

Pelton and Turgo wet-side glass filled nylon rotors have up to 5-year abrasion warrantee when operated at below 100m (PLT) and 30m (TRG) head, refer to technical specifications.

Add 2 years to your standard warrantee

Excess fee = Watts generated / 2
For example a 500W hydro the fee is \$250 US

Add 4 years to your standard warrantee

Excess fee = Watts generated For example a 500W hydro the fee is \$500 US

Add 5 years to your standard warrantee

Excess fee = Watts generated x 1.5 For example a 500W hydro the fee is \$750 US

All warrantees require you to send a picture of the failed part. Warranties exclude damage caused by:

- Turbine submersion
- Bearing failure
- Incorrect installation
- Product abuse

Minimum generation fee for a warrantee extension is based on 200W. In calculating the premium to be paid, generation output is rounded to the nearest 50W

Fee applies to each turbine purchased.

DHL Freight Zones – surcharges apply to zones 7, 8 & 9 only

Country	Zone	Country	Zone	Country	Zone	Country	Zone	Country	Zone
Afghanistan	9	Congo	9	Hong Kong	3	Mongolia	9	Somaliland, Rep of (North Somalia)	
Albania	7	Congo, The Democratic Republic of	9	Hungary	7	Montenegro	7	South Africa	9
Algeria	9	Cook Islands	6	Iceland	7	Montserrat	9	Spain	7
American Samoa	6	Costa Rica	9	India	3	Morocco	9	Sri Lanka	6
Andorra	7	Cote d'Ivoire	9	Indonesia	5	Mozambique	9	St. Barthelemy	9
Angola	9	Croatia	7	Iran (Islamic Republic of)	9	Myanmar	5	St. Eustatius	9
Anguilla	9	Cuba	9	Iraq	9	Namibia	9	St. Kitts	9
Antigua	9	Curacao	9	Ireland, Republic Of	7	Nauru, Republic Of	6	St. Lucia	9
Argentina	9	Cyprus	7	Israel	8	Nepal	6	St. Maarten	9
Armenia	9	Czech Republic, The	7	Italy	7	Netherlands, The	7	St. Vincent	9
Aruba	9	Denmark	7	Jamaica	9	Nevis	9	Sudan	8
Australia (rest of AU)	2	Djibouti	9	Japan	5	New Caledonia	6	Suriname	9
Australia (SYD, BNE, MEL, CBR)	1	Dominica	9	Jersey	7	Nicaragua	9	Swaziland 9	9
Austria	7	Dominican Republic	9	Jordan	8	Niger	9	Sweden	7
Azerbaijan	9	East Timor	5	Kazakhstan	7	Nigeria	9	Switzerland	7
Bahamas	9	Ecuador	9	Kenya	9	Niue	7	Syria	8
Bahrain	8	Egypt	8	Kiribati	6	Norway	8	Tahiti	6
Bangladesh	6	El Salvador	9	Korea, Republic Of	6	Oman	6	Taiwan	6
Barbados	9	Eritrea	9	Korea, The D.P.R of	6	Pakistan	9	Tajikistan	7
Belarus	7	Estonia	7	Kuwait	8	Panama	6	Tanzania	9
Belgium	7	Ethiopia	9	Kyrgyzstan	7	Papua New Guinea	9	Thailand	5
Belize	9	Falkland Islands	9	Lao People's Democratic Republic	5	Paraguay	9	Togo	9
Benin	9	Faroe Islands	7	Latvia	7	Peru	5	Tonga	6
Bermuda	9	Fiji	2	Lebanon	8	Philippines, The	7	Trinidad & Tobago	9
Bhutan	6	Finland	7	Lesotho	9	Poland	7	Tunisia	9
Bolivia	9	France	7	Liberia	9	Portugal	9	Turkey	7
Bonaire	9	French Guiana	9	Libya	9	Puerto Rico	8	Turkmenistan	9
Bosnia & Herzegovina	7	Gabon	9	Liechtenstein	7	Qatar	9	Turks & Caicos Islands	9
Botswana	9	Gambia	9	Lithuania	7	Reunion, Island Of	7	Tuvalu	6
Brazil	9	Georgia	7	Luxembourg	6	Romania	7	Uganda	9
Brunei	5	Germany	7	Macau	6	Russian Federation, The	9	Ukraine	7
Bulgaria	7	Ghana	9	Macedonia, Republic of (FYROM)	7	Rwanda	6	United Arab Emirates	8
Burkina Faso	9	Gibraltar	7	Madagascar	9	Saipan	6	United Kingdom	7
Burundi	9	Greece	7	Malawi	9	Samoa	9	United States Of America	4
Cambodia	5	Greenland	7	Malaysia	5	San Marino	9	Uruguay	9
Cameroon	9	Grenada	9	Maldives	9	Sao Tome & Principe	8	Uzbekistan	7
Canada	4	Guadeloupe	9	Mali	9	Saudi Arabia	9	Vanuatu	6
Canary Islands, The	7	Guam	6	Malta	7	Senegal	7	Venezuela	9
Cape Verde	9	Guatemala	7	Marshall Islands	6	Serbia, Republic of	9	Vietnam	5
Cayman Islands	9	Guernsey	9	Martinique	9	Seychelles	9	Virgin Islands (British)	9
Central African Republic	9	Guinea Republic	9	Mauritania	9	Sierra Leone	5	Virgin Islands (US)	9
Chad	9	Guinea-Bissau	9	Mauritius	9	Singapore	7	Yemen	8
Chile	9	Guinea-Equatorial	9	Mayotte	9	Slovakia	7	Zambia	9
China	3	Guyana (British)	9	Mexico	4	Slovenia	6	Zimbabwe	9
Colombia	9	Haiti	9	Moldova, Republic Of	7	Solomon Islands	9		
Comoros	9	Honduras	9	Monaco	9	Somalia	9		

Examples with 2.5% insurance fee rounded to nearest \$US (minimum insurance fee is US25).

PLT

A single PLT80 turbine (non HP) sent to the USA (zone 4):

= 1599 + 40 = \$1639 each.

A single PLT80 turbine (non HP) sent to the remote Alaskan town (zone 4 + remote) = 1599 + 40 + 30 = \$1669 each.

A single PLT80 turbine (non HP) sent to the Zambia (zone 9) = 1599 + 40 + 225 = \$1894 each.

A PLT40 twin pack <300W each sent to the USA (zone 4) = $2 \times 999 + 40 = 2038 for two turbines.

A PLT40 twin pack <300W each sent to the rural Zambia (zone 9 + remote) = $2 \times 999 + 40 + 225 + 30 = $2293US$ for two.

Two PLT56 twin packs <300W each (4-turbines) sent to the UK (zone 7) = $4 \times 899 + 90 + 2 \times 75 = 3836 for four turbines.

TRG

Two TRG80 twin packs <600W each (4-turbines) sent to the Fiji (zone 2) = $4 \times 999 + 100 = 4096 for four turbines.