

RVV CHP Units

Income Assumptions

last updated May 16, 2011

Hours of Operation

hours / year	8,760	
maintenance	(160)	
max production	8,600	
Recommended	8,000	by mfr
Assumed	8,200	(internal planning assumptions)

Production Levels	Equip Capacity	Op Efficiency	kW / hr	8000 hrs	8200 hrs	8600 hrs
Electricity	188 kva	80%	150	1,200,000	1,230,000	1,290,000
thermal	continuous (140 kw)	90%	126	1,008,000	1,033,200	1,083,600

Electricity Sales

	2010 FIT Rates	2011 FIT Rates	Est 2012 FIT Rates	If Placed in 2011	If Placed in 2012
Electricity Produced / Year - based on targeted 8,200 hours operation / year				1,230,000	1,230,000
Base Feed in Tariff (EEG § 27 - Biogas) up to 150 kW	0.1155	0.1144	0.1127	140,712.00 €	138,601.32 €
Base FIT above 150 KW		0.0932	0.0918	0.00 €	0.00 €
Base FIT above 500 KW		0.8380	0.8254	0.00 €	0.00 €
NaWaRo-Bonus (for using renewable biofuel) up to 500 kWel	0.0594	0.0588	0.0579	72,324.00 €	71,239.14 €
NaWaRo-Bonus above 500 kWel		0.0400	0.0394	0.00 €	0.00 €
KWK-Bonus (KWK = cogen technology bonus)	0.0297	0.0294	0.0290	36,162.00 €	35,619.57 €
total				249,198.00 €	245,460.03 €
Average €€ / kWh from prev year	0.2046	0.2026 1% reduction	0.1996 1.5% reduction?	0.2026 € 0.0887 €	0.1996 €

Comments

- 1) Above rates are based on current FIT rates in place for 2011
- 2) FIT rates are not based on installed capacity (like Solar) but rather on performance (ie - 150 kWh)
- 3) FIT rates for cogeneration units are expected to decline in 2012 (by 1.5% ?)
- 4) All bonus amounts (e.g., € 20.26 cents) are paid monthly by the utility that has geographic responsibility for area where CHP is installed
- 5) For more information go to: http://www.germanenergyblog.de/?page_id=965

Thermal Sales

	Conservative	Market
Thermal Sales per kWh	0.06 €	0.10 €
KW thermal sales / year	1,033,200	1,148,000
Thermal Sales / year	61,992.00 €	114,800.00 €

Comments:

- 1) Current pricing is currently €0.08 to €0.10 per KW produced / year for oil or gas heating units
(note as the leasing cost typically only runs €5.00 / qm on 100 qm = €500 / month -- higher rates better)
- 2) We've assumed €0.06 / kwh (net of ground lease costs)
- 3) Where possible we will endeavor to pass along fuel cost increases to our thermal customers