Costs Associated with Washing Nappies at Home

Total Cost of Washing at 60˚	£102.19
Total Cost of Washing at 60˚ on a water meter	£123.79

Depreciation Costs

Depreciation cost associated with washing nappies for 2.5 years: £15.91
(see calculation 1)

Calculation 1: (A x B)/C x D

A = The average price of a washing machine is £296[1]
B = Average number of years in real nappies and therefore requiring washing is 2.5
C = The average lifespan of a washing machine is 12.09 years[2].
D = Nappies as a percentage of total wash cycles is 26% (0.26) (see calculation 2)

Calculation 2 : B/(A + B) x 100

A = Most machines run an average of 274 cycles per year[3],
B = Number of cycles required for nappies per year is 96 (see calculation 3)

Calculation 3: A/B

A = Number of days in a year is 365
B = Nappies washed every 3.8 days (see calculation 4)

Calculation 4: A/B

A = Number of nappies assumed owned by family is 20
B = Number of nappies used per day is 5.2 (see calculation 5)

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[1] GFK Marketing Services Ltd (2006) – we are currently seeking a more up to date figure
[2] Market Transformation Programme - BNW05: Assumptions underlying the energy projections for domestic washing machines; figure referenced to GFK http://www.mtprog.com/spm/download/document/id/569
[3] Market Transformation Programme - BNW05: Assumptions underlying the energy projections for domestic washing machines

Calculation 5: (A/B)/C

A = Number of changes needed per baby is 4732[4]
B = Average number of years in real nappies is 2.5
C = Number of days in a year is 365

Washing Powder

Total washing powder costs for 2.5 years: £52.80
(See calculation 4)

Calculation 6: A x B x C

A = The weight of washing powder used in a standard wash is 100g and the average cost of this is 22p[5].
B = Number of cycles required per year for nappies is 96 (see calculation 3)
C = Average number of years in real nappies and therefore requiring washing is 2.5

NB The use of fabric conditioner is not recommended when washing nappies and nappies no longer need to be soaked in sterilising solution prior to being washed.

Electricity

Total cost of electricity to wash nappies over 2½ years at a 60˚ wash in an A/B rated machine is: £33.48
(See calculation 7)

Calculation 7: A x B x C

A = Number of cycles required for nappies per year is 96 (see calculation 3)
B = Average number of years in real nappies is 2.5
C = Cost of electricity per wash at 60˚ in an A/B rated machine is: 13.95p (see tables below)

The energy consumption for different energy rated washing machines for a 60˚ and 40˚ wash are:

[4] Go Real research 2009 based on advice from midwifes
[5] Go Real research 2009. Backed up by UK Cleaning Products Industry Association (UKCPI)

kWh per cycle/Energy Rating[6]	A+	A	B
60˚ wash	1.00	1.06	1.06
40˚ wash	0.60	0.64	0.64

The average unit cost for electricity for 2008 is 13.95p per kWh[7]. Therefore, electricity cost per wash:

Cost per cycle (pence)/Energy Rating	A+	A	B
60˚ wash	13.95	14.79	14.79
40˚ wash	8.37	8.93	8.93

NB Most real nappy manufacturers recommend a 60˚ wash, although more are now recommending washing wet nappies at 40˚.

Water

The total cost of water to wash nappies over 2½ years is: £21.60
(see calculation 8)

Calculation 8: A x B x C x D

A = Number of cycles required for nappies per year is 96 (see calculation 3)
B = Average number of years in real nappies is 2.5
C = Average water used by washing machine per wash is 50 litres[8].
D = Average cost of water supplied and taken away (2006-7) is 0.18p per litre[9].

NB Although only 30% of homes have a water meter, all homes built since 1989 are fitted with one so cost of water in this calculation is calculated to be used where appropriate.

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[6] Market Transformation Programme - BNW05: Assumptions underlying the energy projections for domestic washing machines;
[7] Energy Saving Trust 2009
[8] Market Transformation Programme - BNW05: Assumptions underlying the energy projections for domestic washing machines;
[9] http://www.uswitch.com/water/how-much-water-use/