set time domain 0 to T with M samples of g_k

$\Delta = \frac{T}{M}$; define index $k = 0,..., M-1$; $t_k = \Delta \bullet k$; $g_k = g(t_k)$

Use antisymmetric form of DFT

$$G_l = \sum_{k=0}^{M-1} g_k e^{-i2\pi \frac{l \cdot k}{M}}; \quad g_k = \frac{1}{M} \sum_{l=0}^{M-1} G_l e^{i2\pi \frac{l \cdot k}{M}}$$

g_k and G_l has the same units. By Parseval's theorem (or simply by the realization that the Fourier transform is unitary) we have

$$\text{Tot} = \sum_{k=0}^{M-1} |g_k|^2 = \frac{1}{M} \sum_{l=0}^{M-1} |G_l|^2$$

$$ENC \equiv \sqrt{\frac{Tot}{M}} \frac{1}{A} \frac{1}{e}$$

If the noise spectrum data $|G_l|^2$ is provided then its average should correspond to the noise according to above formula where A is the gain in V/C. Check this to get the units correct.