

CBC DECISION/CLARIFICATION SHEET

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| Subject: Tower buckling using Eurocode 3 | | Standard and clause: IEC 61400-1:2005 Eurocode 3 part 1-6 | Sheet No. CBC 12A |
| Status of document: Approved | | Proposal date: 2013-10-17 | Originator of proposal: DNV GL/Christer Eriksson |
| Related document: | | | |
| Revision: | Approval Date: | Description: | |
| A | 2013-10-17 | Original proposal | |
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Background:

The safety factor for global buckling is minimum 1.2 according to IEC 61400-1 ed.3. In Germany it has been accepted by the certification bodies to instead apply a safety factor of 1.1 for tubular steel towers when using the parametric formulas in Eurocode 3 part 1-6.

The reliability sub group to IEC TC88 MT1 has looked into the buckling of tubular steel towers and it is concluded in the draft background document that 1.1 will be sufficient due to bias/hidden safety.

Clarification:

The present draft text for the IEC 61400-1 ed.4 may be applied:

The parametric formulas based on membrane theory in Eurocode 3 part 6 (EN 1993-1-6) for shell buckling applicable to tubular steel towers with $D/t < 250$ includes a bias that may be accounted for by reducing the γ_M for buckling to 1,1.