

IEA CCS Regulators Network

Financial security from an EU perspective - 30 June 2010

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Disclaimer

- The purpose of this presentation is to give an overview of the financial mechanisms and subsequent challenges to support long-term liability within EU. It should be noted that FS instruments are not discussed in this presentation.
- This is a presentation prepared by Statoil and the presentation does not represent an official position of the Commission
- In order to assist stakeholders to implement Directive 2009/31/EC, the Commission has prepared guidance documents and a six week consultation period with stakeholders has just started (Written feedback to be handed in by July 30th)
- Issues linked to liability and Financial security is still under consideration within ZEP and Statoil (ref. the consultation mentioned above) - if not otherwise clearly stated this presentation represents a preliminary position of Statoil

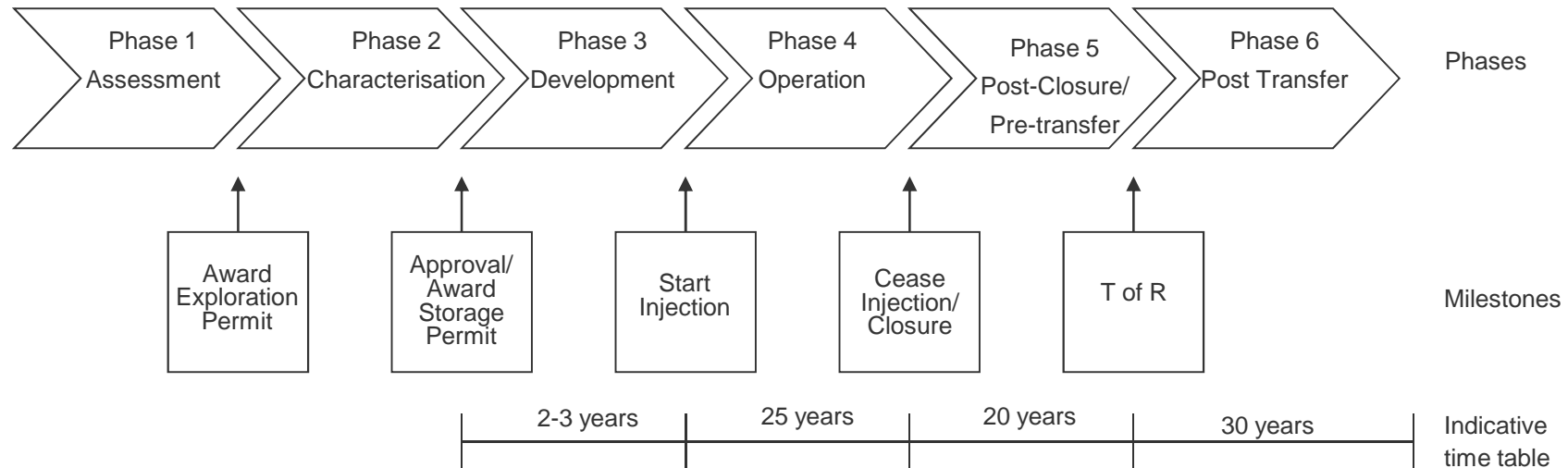
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Storage Life Cycle Phases



Financial Security (FS)

- Article 19 (FS) requires that “Member States shall ensure that proof that adequate provisions can be established, by way of financial security or any other equivalent, on the basis of arrangements to be decided by the Member States, is presented by the potential operator as part of the application for a storage permit.”
- Article 19(3) states that the FS shall remain valid and effective until the transfer of responsibility to the competent authority (CA)
- Article 19 requires that the FS should be periodically adjusted to take account of changes to the assessed risk of leakage and the estimated costs of the obligations to be addressed.

Obligations that FS must cover

Table 1: Obligations under the permit that must be covered by FS under CCS Directive

Operations Period	Closure and Post-Closure Period
1.A monitoring, updates of monitoring plan, and required reports of monitoring results	1.B monitoring, updates of monitoring plan, and required reports of monitoring results
2.A updates of corrective measures plan, and implementing corrective measures, including measures related to the protection of human health	2.B updates of corrective measures plan, and implementing corrective measures, including measures related to the protection of human health
3.A surrender of allowances for any emissions from the site, including leakages, pursuant to ETS Directive	3.B surrender of allowances for any emissions from the site, including leakages, pursuant to ETS Directive
4.A update of provisional post closure plan	4.B sealing the storage site and removing injection facilities
5.A maintaining injection operations by the CA until new storage permit is issued, if storage permit is withdrawn, including CO ₂ composition analysis, risk assessment and registration, and required reports of CO ₂ streams delivered and injected.	5.B making required financial contribution (FC) available to the CA

Obligations certain to occur although time and cost may change

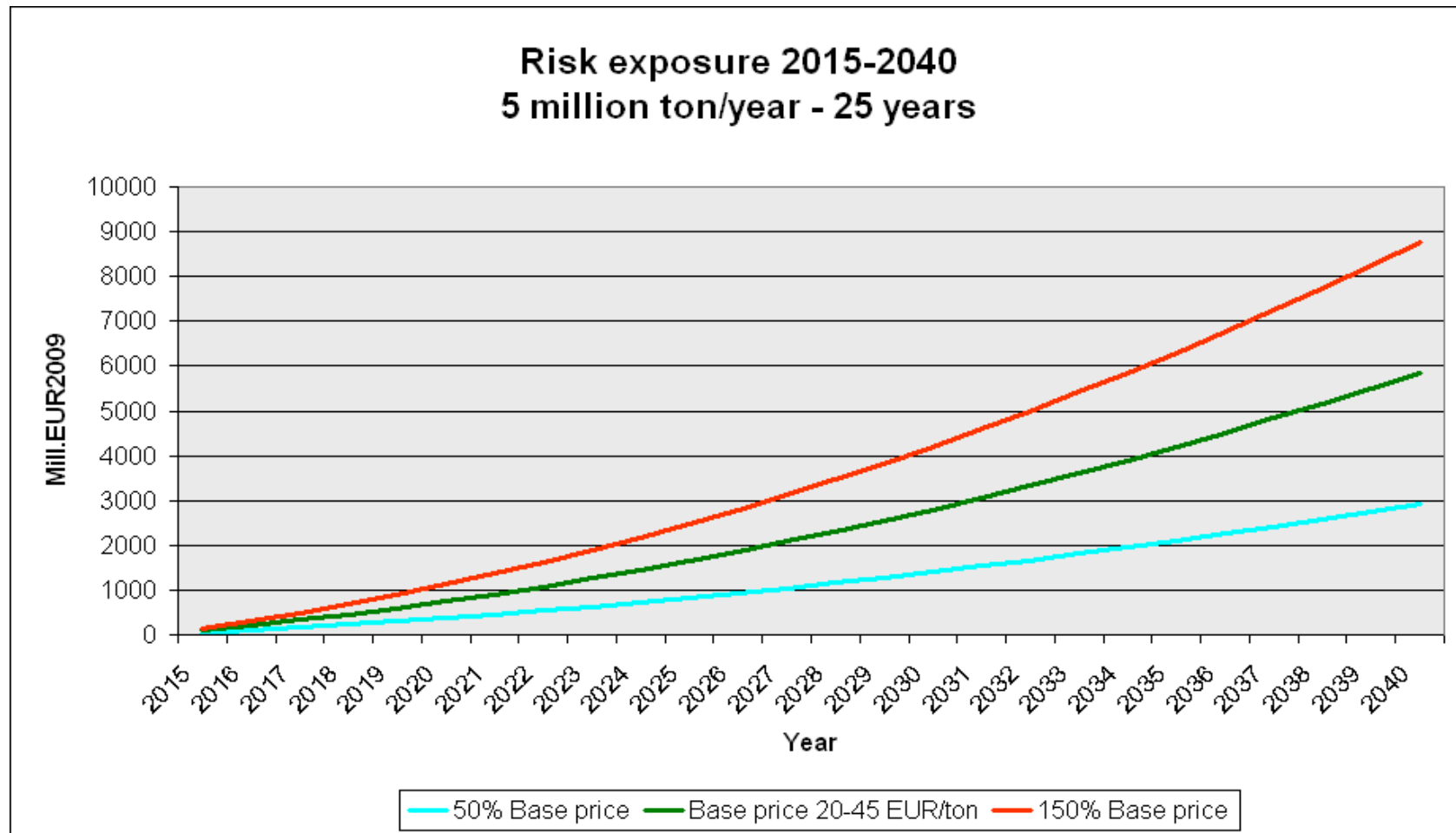
Guidance document - Commission's positions

- FS not adjusted by estimated probability
- Contingency on FS of at least 25% should be required (or higher)
- Long-term estimates of EUA prices to be avoided - update periodically (3-5 years)
- Insurance products do not correspond to obligations specified in the CCS Directive (the liability to obtain EUAs if a seepage of CO₂ occur is not insurable)
- FS shall not distort the cost of CCS or unduly exposing taxpayer¹⁾

Guidelines need further evaluations before further comments are made

1. The Commission's Impact Assessment showed that without CCS the cost of addressing climate change in the EU rises by 40%.

Theoretical financial liability¹⁾ - allowances 100%



1) The IEA Energy Technology Perspectives estimates that the price of CO₂ will be \$200/ t CO₂ to keep temperature rise to less than 2°C.

Closing remarks

- The directive - a tool for a wide and accelerated deployment of CCS
- The industry needs a firm framework and manageable risk exposure
- Additional and uncertain costs should not be imposed on the operator

- The operator should be relieved from its obligations if a Force Majeure event occurs
- The storage operator cannot be expected to take on the total risk associated with the EUA price¹).
- No liability after transfer of responsibility - financial contribution limited to monitoring
- FS to be adjusted by estimated probability - flexibility needed to open up for the MS to share some of the risks

1. The policy that dictates the CO₂ price is in the hands of governments (beyond 2020 currently no regime exists).

Preliminary conclusion

Uncertain costs and risks imposed on the operator could result in no deployment of CCS in Europe

Thank you

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Existing Norwegian regime - for information

The CO₂ tax law § 2 (not official translation):

- “CO₂ tax is to be charged on petroleum which is burnt and natural gas which is discharged to air and also on CO₂ separated from petroleum and discharged to air, on installations used in connection with production or transportation of petroleum”.
- Statoil’s interpretation of the law is that the law is linked to the discharge of CO₂ to air on the installation. As we see it, the relevant authorities have no authority, according to the present legal regime, to charge any CO₂ tax on any subsequent seepage of CO₂ from the reservoir.
- It should however be mentioned that Norwegian authorities may at any time require the operator to take necessary corrective measures in the event of leakage from the reservoir which is regarded as pollution

Liability and FS - general position

Letter from ZEP¹⁾ to the Commission submitted June 2010²⁾:

- ZEP is gravely concerned that the scale of the assumed theoretical liability may act as a significant barrier to CCS projects and the further deployment of CCS.
- A professionally selected and managed CO₂ storage site will have a fractional risk of leakage that actually diminishes further over time due to a variety of well-known and understood geological trapping mechanisms.
- This renders unnecessary the need to provide a larger provision for financial security and theoretical liability.

1) A letter covering nearly identical concerns also submitted from CCSA

2) The letters were mainly concerned with the theoretical risk posed by the value of the accumulated CO₂