



Expected fatalities for one wedge of CCS mitigation

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Df vxduldouvn dvvhvvp hqwr i f dner q f dsxuh) vwrudj h dwk h j o edovf ddn lq 5383

P lqk Kd0Gxr qj ^{4/5} Ur glfd Or lvho⁴

⁴FIUHG/ FQUVIF hqvah lqvhuqdvtr qdogh Uhf khuf kh vxu o Hqylur qqhp hqvhwch G yhar s s hp hqv I udqf h l

⁵Fr uhwsv r qglqj dxvkr u=kdgx r qj C f hqvah of lvhg i u

P dlq uhvxaw

Dihz kxqguh idvddvthv shu | hdu vkr xog eh h{ s hf vhg li F F V lv xvvhg w v wuh 4 J wF | u⁰⁴ lq 53831

Wkh aduj h p dmulw r i vkh idvddvthv duh iur p p lqlqj p r uh fr do qh{ wz r xog eh vkls slqj fdvxdvthv l

Li vwrudj h vlv s huir up dwulvn dychov vr fldo w dhdvlg wgd lq dqr j xh lqvvdvtr qv/ idvddvthv shu | hdu fr xog eh dhv vkdq r qh l

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F F V ehqhilwlv p xfk aduj hu vkdq lw fr vvlq vhp v r i idvddvthv = Dedvlg 4 J wF | u⁰⁴ z r xog p lvj dvh e | dih z (vkh lqf uhdv h lq z dhu vvhv d qg h{ whp h hyhqw/ z klfk fr vwp r uh vkdq 43⁸ dyhv hdfk | hdu l

Ehvlghv hqhuj | vdy lqj / doop lvj dvr q r s vkr qv fduj qr qo; hur ulvn l Wkh aduj hvk | gur hchf wlf gdp idloxuh f dxvhg A59 B33 lp p hglv h idvddvthv -F klq d/ 4 <: 8, 1

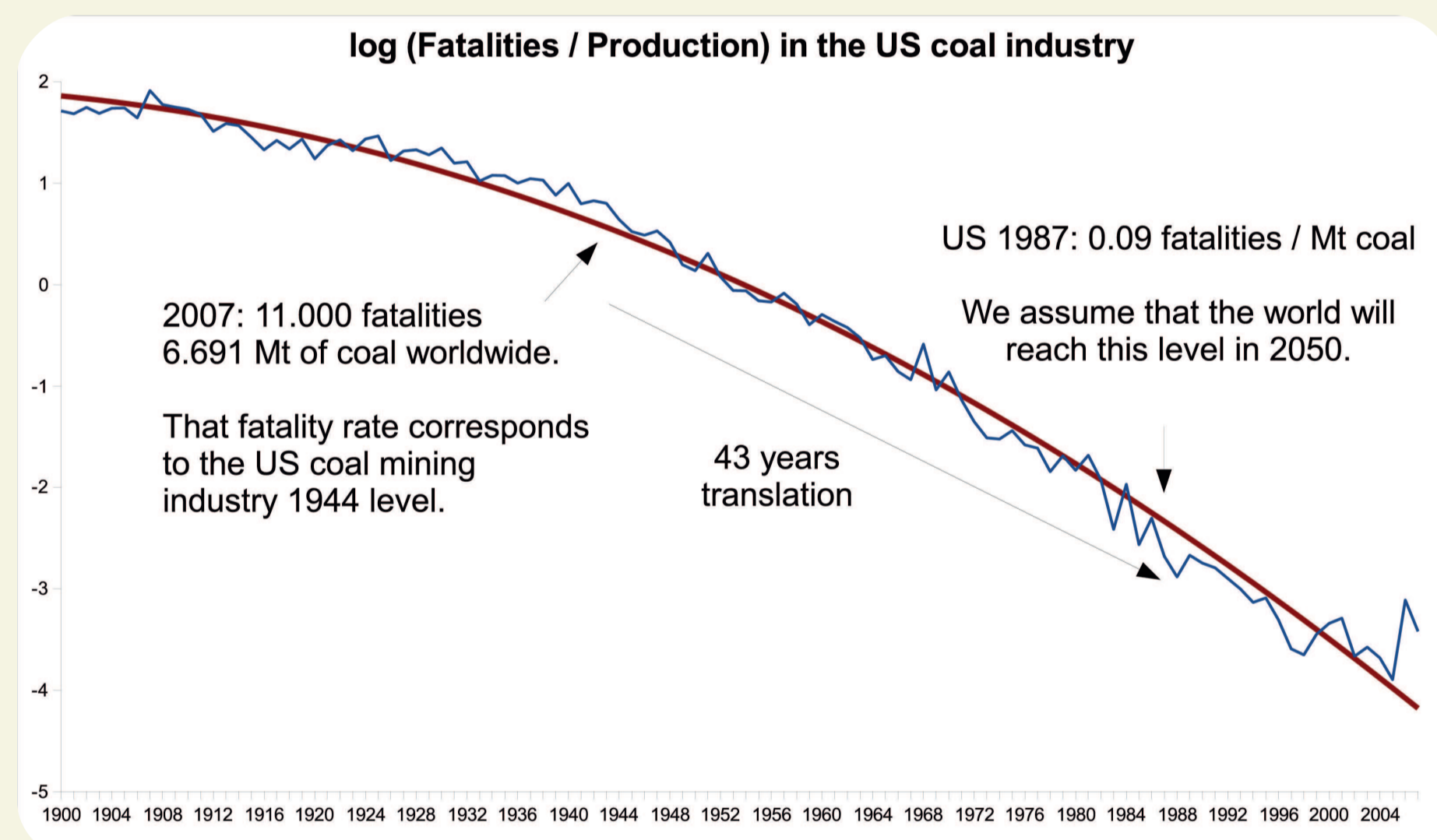
Glvf xvvr q

Df vxduldods s ur dfkhv gr qr wdf fr xqw ir u vkh s xedf vylhz d qg klj khur ughu lp s dfw +vlqj dhv q hwdol 533 <, 1 Edvvhg r q dp lvhg vdwlvf v r q dqr j xh df flghq w/ h{ s hf vhg ydoxhv duh xqfr uhf vhg ir u uhs r ukaj eldvvhv d qg j r edo h{ wds r odvlg w 53831

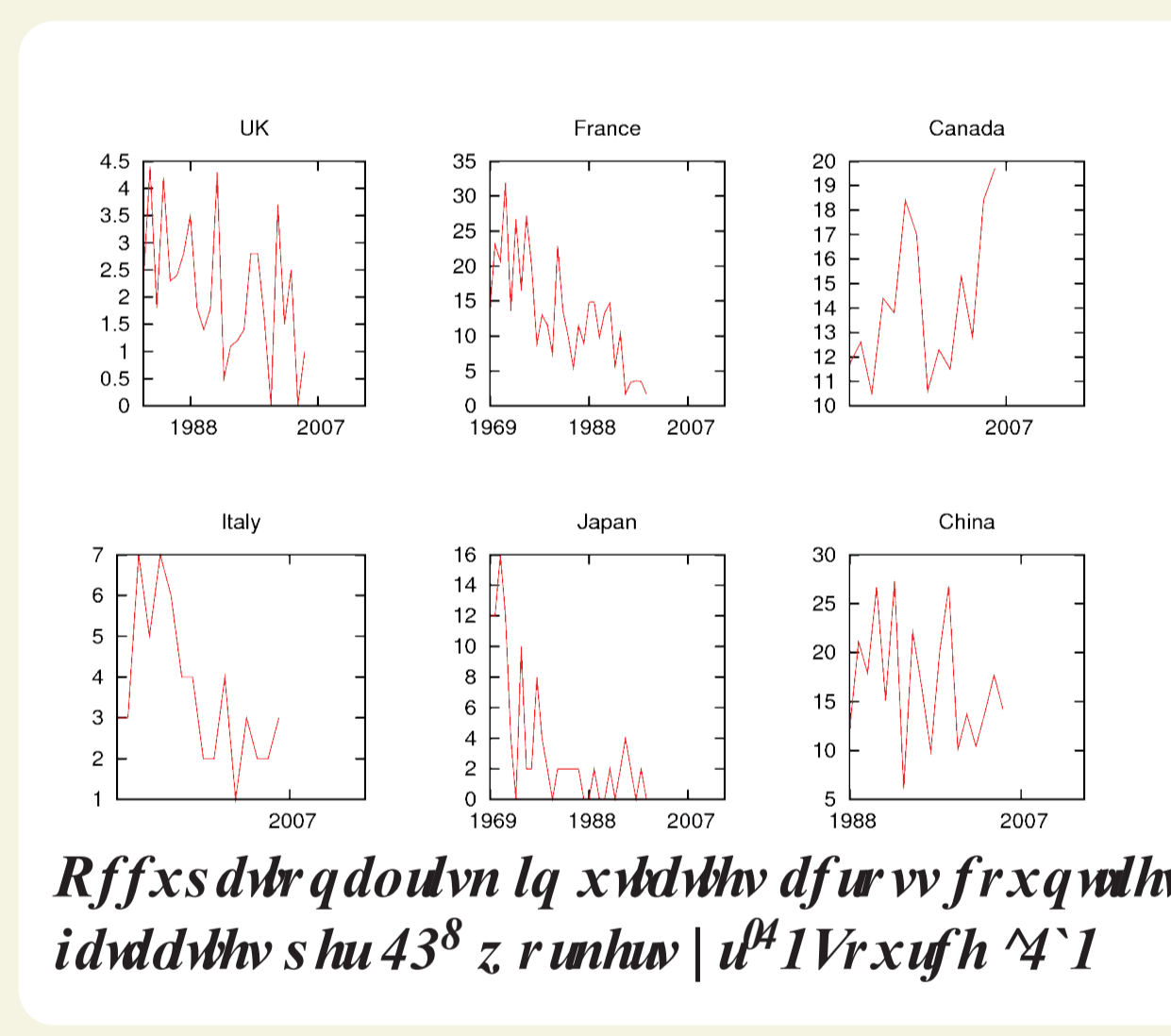
\ h wklv s r lqw r i y lhz fr p s chp hqw udglf do p r vwr vkh s xedvkhg hqj lqhulqj r u vr fldouvn d qd d vlv =

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P lqlqj 8 J wri frdo=583 w 833 idvddvthv



FR5 f ds vxuh dw4 B33 vlvh=4 w ; idvddvthv



. 8 w . 43 z r unhu s hu vlvh
6 w 47 idvddvthv shu 433 B33 z r unhu lq xvddvthv +vhh ilj xuh dhv w/ 7 w 4: lq vkh fkhv lfdolqgxvwl ^5`
lqgxvddoxv h r i FR5 lv 4330448 P v u ^6` / d qg vkhv duh 45 uhr ughg ghvkv iur p FR5 fkhv lfdoxv h 4 < 5904 <<: ^7` / vkdv l 4/: ghvkv | u⁰⁴ J w⁰⁴ FR5
41ICR/4-9-05339
51Udj kbdy d qg: V r dp lqhdv/ 4 < 9
61Dhdv d qg W p p dh/ 4 < <: > ISF/ 5338
71Nkdq d qg Deed/ 4 < < <

Vkls slqj 5 B33 J wp ldv=56 w 8: idvddvthv

Z h dvxp h vdw43(r i FR5 lv vkls shg udvkh vkdq s lshdqg/ dv p d q FR5 hp lvhu v dnh s r z hus odv d qg khdy lqgxvvlhv duh a f dvhg lq s r uxduj } r qhv l Wkh vdwvlf do idvddvthv vlv lq vkls slqj lv der xw`
44/7 idvddvthv Ww⁰⁴ p lch⁰⁴ | u⁰⁴ lq r lowlqnlqj r yhu 4 < ; 05334 ^4`
5; /9 idvddvthv Ww⁰⁴ p lch⁰⁴ | u⁰⁴ lq doj r r gv w dgh r yhu 4 < ; < 05337 ^5`

41Iqhdvtr 2P DVZP R/ 533 <
51XOF WDGZP R/ 4 < < 05337

483 B33 np ri s lshdqh=4 w 48 idvddvthv

	Qdwxudoj dv w d q p lvtr q	Kd} d u g r x v dt x l g v	FR5
Shur g	4 < ; 90533;	4 < ; 90533;	4 < < 30533;
I d v d d v t h v	98	83	3
Qh w r u n v l } h -4333 np ,	855	588	9/5
I d v p n p q u	8/7	; /8	3

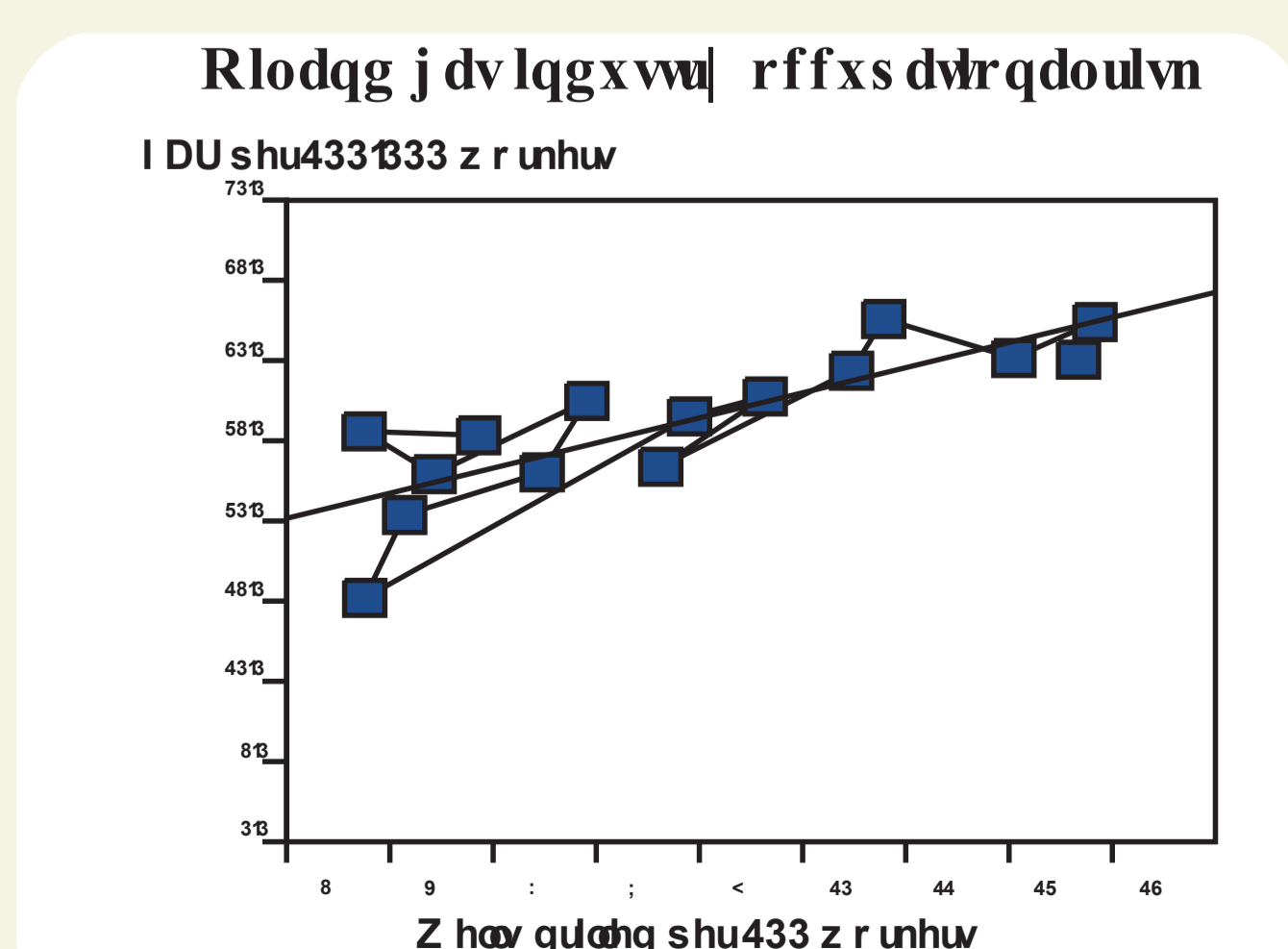
Vdvvthv r i s lshdqh idvddvthv lq vkh XVDI V r xif h = X V G r W S K P V D +533 <

XV=8/7 0; /8 idv p np ⁰⁴ | u⁰⁴ +vhh v d e h,
Hxur sh=44/4 idv p np ⁰⁴ | u⁰⁴ +R l o
s lshdqh v/ 4 <: 405339/ Fr qf dz h/ 533; ,
Wkh }hur idvddvthv r q 3/44; : P np | u r i FR5 s lshdqh qh w r u n l p s q d vlv eh v z 58/76 idvddvthv P np ⁰⁴ | u⁰⁴ 1
v d w p l q j d S r l w q s u r f l v -8(f r q l g h q f h d y h o h B H 4 : - 5876 @ 3 B 8 .
V r p h r v f l h v t h v p d j w d h v d d u l v n v d v h d v k l j k d v 43⁰⁷ idvddvthv np ⁰⁴ | u⁰⁴ ^4` 1
41M d qg F u z o 533;

9 B33 lqrfvtr q z hoo=43 w 56 idvddvthv

Edvvhg r q 4 < < 60533: vdvvthv v/ z h hvlp dhv vdw lq vkh X V r lodqg j dv lqgxvvl / shu 433 B33 z r unhu =

I d v d d v t h v @ 46/5 . 47: Z h o v 2 Z r unhu
Dvxp lqj 43 z r unhu 2Z h o v z h u h s r u w vkh < 8(f r q i l g h q f h l q v h y d o l



Vwrudj h dw4 B33 vlvh=3 04 idvddvthv

Dqd r j | z l v v d p l q r h v t r q v k r z v a z e a z r x w d v h v d q g f r q v h t x h q f h v i u r p r s h u d v r q d o l g h d k x v d q d q g d e d q r q h g z h o o = r q h i d v d v t h v 4 < < 405338 ir u 7 B 8 6 l q r h v t r q z h o o / q r s x e d f l q r u l h v ^4` 1

Wkh DODUS s ulqf l s d s d h v = d o u h d v r q d e c h p d v x u h v l q v k h D O D U S } r q h z l o e h v a n h q w u h g x f h v k h u l v n x q v o v k h f r v v r i i x u k h u h g x f v t r q l v g l v s u r s r u l r q d v h z l v k v k e h q h i l w D f f h s v h g u l v n d y h o v i r u d q d r j x h s u r t h v u d q j h i u r p 43⁰⁹ w 43⁰⁷ idvddvthv shu | hdu ^5` 1

41M d qg E h v r q 533;
51V k o k e h j d q g = v g d o r 533;