



# **Boliden Tara Mines Limited**

## **Presentation October 3rd, 2007.**

**Tadg Farrell**  
Finance Director.

- **The Tara Mine**
- **Large Energy Consumers**
- **Looking beyond cost concerns**





# Boliden Tara Mines Limited

- | The Tara Mine at Navan, Co. Meath is the biggest zinc mine in Europe-
  - n In production since 1977.
  - n Has mined over 65m tonnes of ore since then.
  - n mills 2.7m tonnes of ore annually.
  - n Produces 400,000 combined tonnes of concentrate - mainly zinc conc. each year.
  - n Employs 660 directly with a further 1,200 to 1,500 dependent jobs externally.
  
- | Boliden, our parent, is a publicly quoted mining and metal company in Sweden.



# Boliden Tara Mines Limited

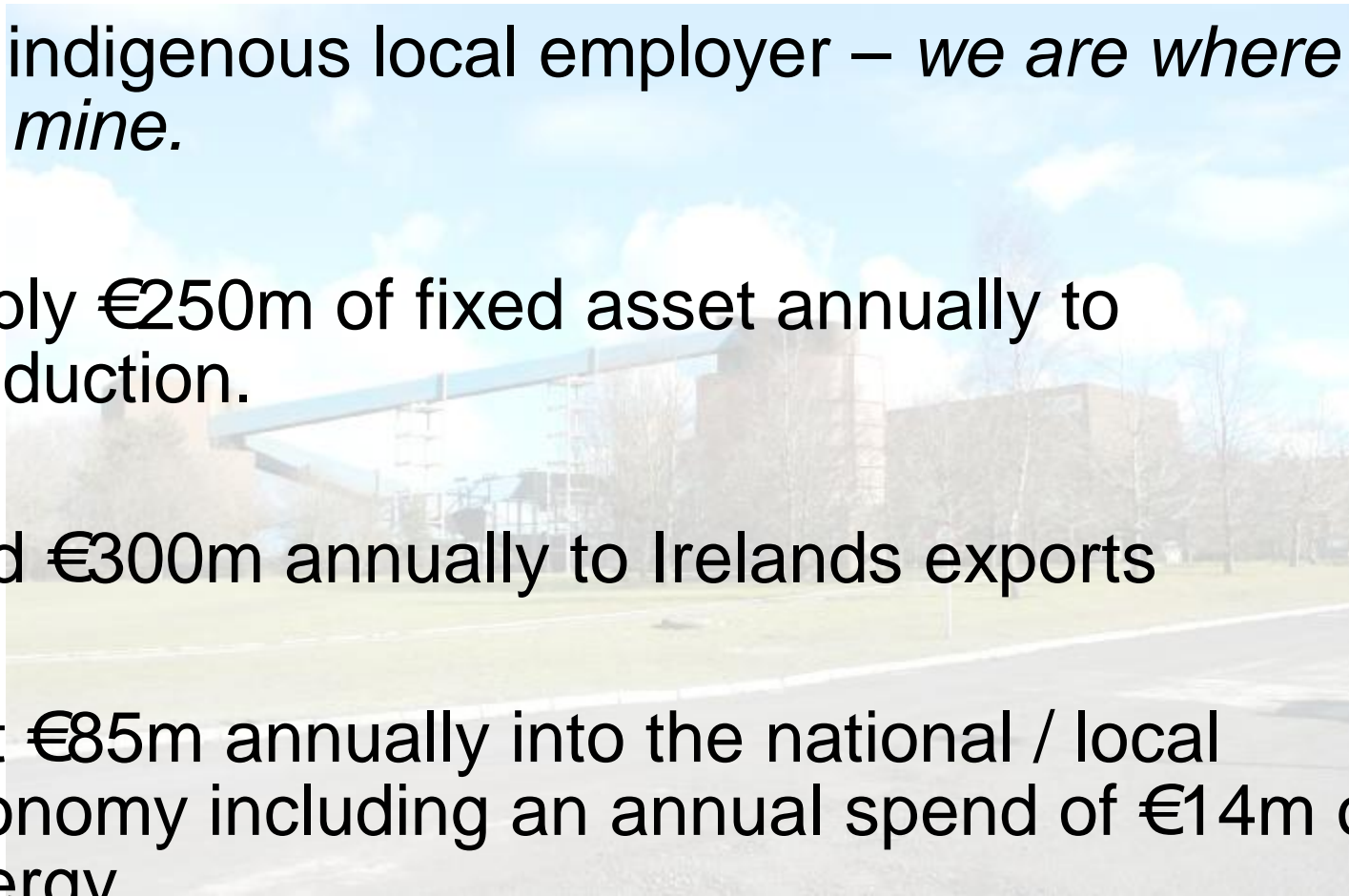




# Boliden Tara Mines Limited

---

- | An indigenous local employer – *we are where we mine.*
- | Apply €250m of fixed asset annually to production.
- | Add €300m annually to Irelands exports
- | Put €85m annually into the national / local economy including an annual spend of €14m on energy.





# Boliden Tara Mines Limited

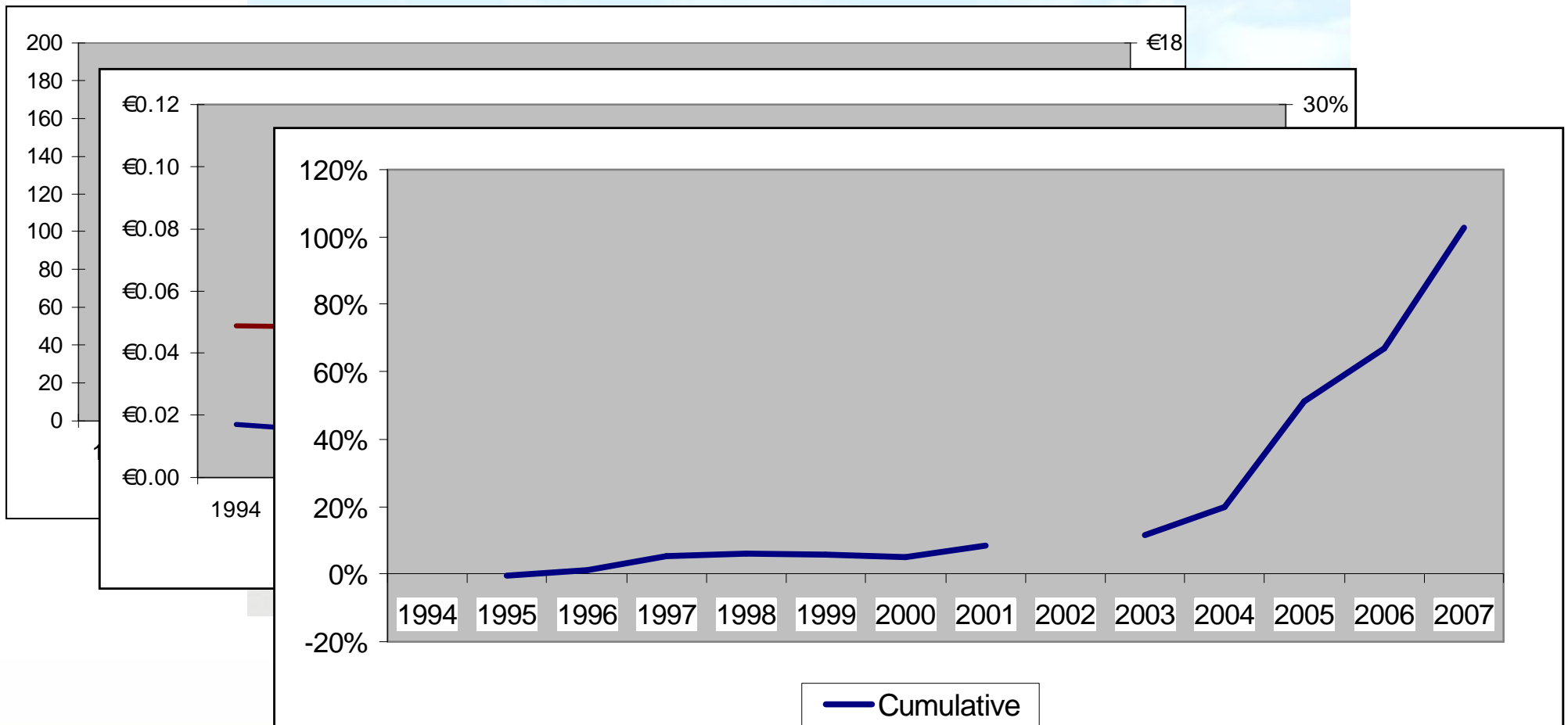
- | The Tara mine will, with the assistance of SEI be certified to IS393 (Irish Energy Management Standard) during Q1/2008.
  - n Efficient use of energy with reduced emissions through a systematic management of energy.
  
- | Boliden's Swedish mines have been accredited to the equivalent Swedish Energy Management Standard since mid-2006 and it is a company goal that all production units implement Energy Management Systems by the end of 2008.
  
- | Tara is EPA licensed and will have the Environmental standard ISO14001 by year end.
  
- | Member of the IBEC Large Energy Consumers Group





# Boliden Tara Mines Limited

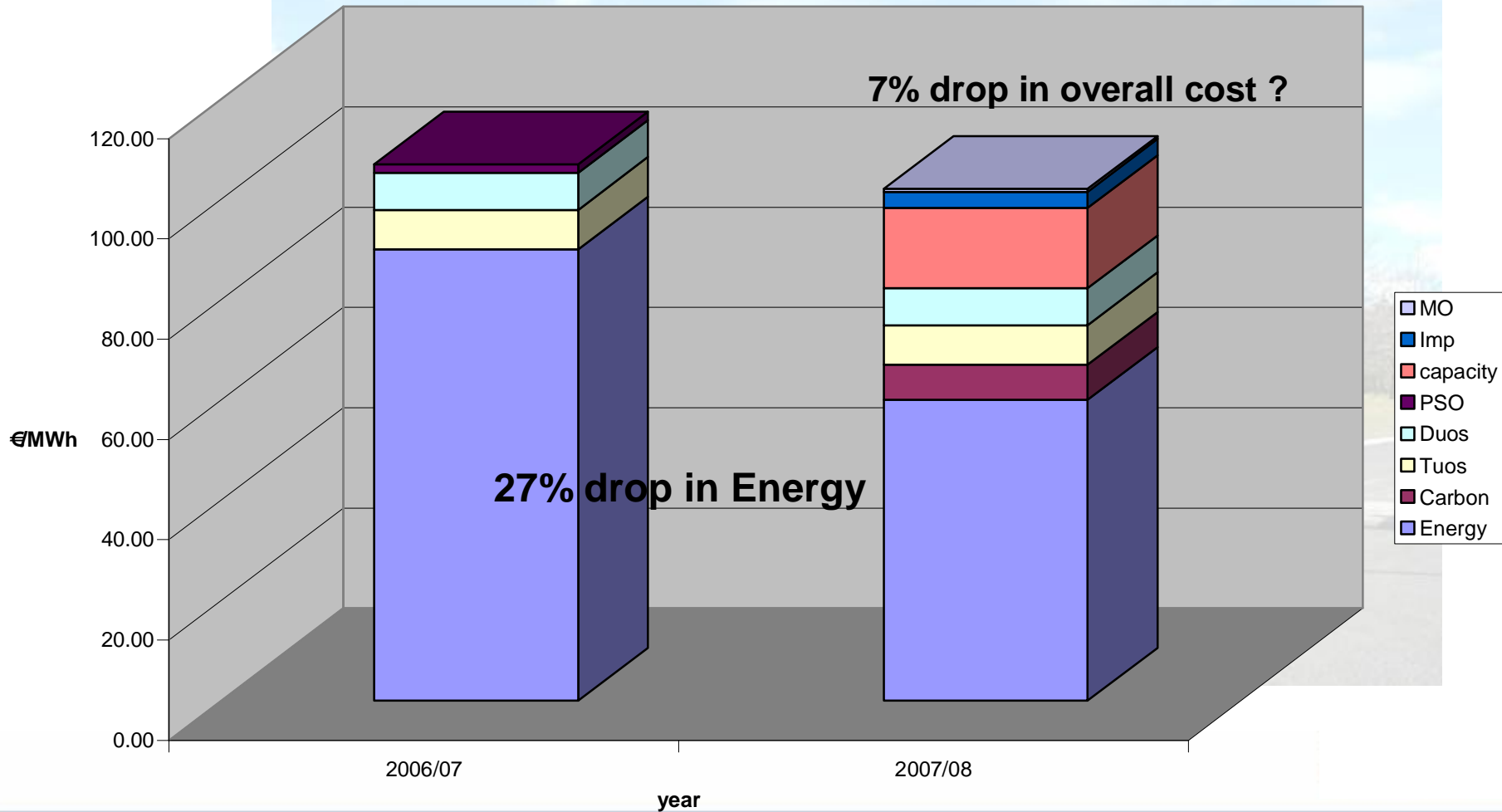
**Electricity, at 13%, is our second biggest cost behind workforce costs.**





# Boliden Tara Mines Limited

Comparison of pre and post SEM price components





# Boliden Tara Mines Limited

---

**With Gas prices falling there is an expectation that electricity costs will also fall.**

## **CER**

- **Residential > 5.4%**
- **Small Business > 5.9%**
- **Medium Business > 10%**





# Boliden Tara Mines Limited

---

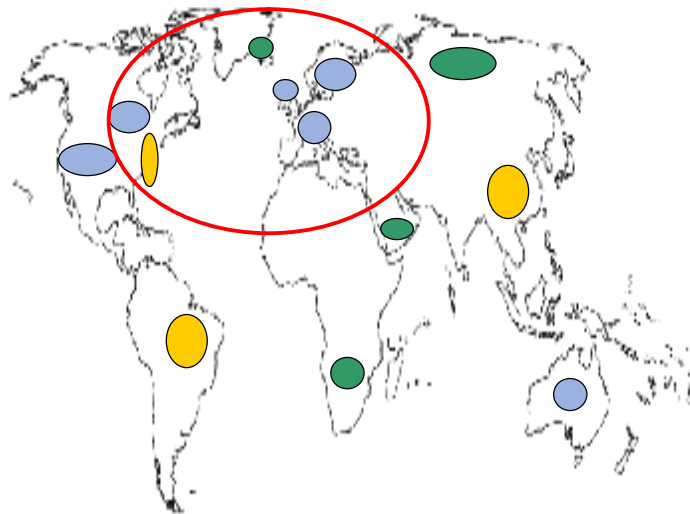
**SEM will, for the large customer , retain any potential savings from Gas price reductions.**

- **Capacity payment - €575m cost to customer**
- **Carbon pass through - €350m cost to customer**
- **Imperfection charge €80m cost to customer**



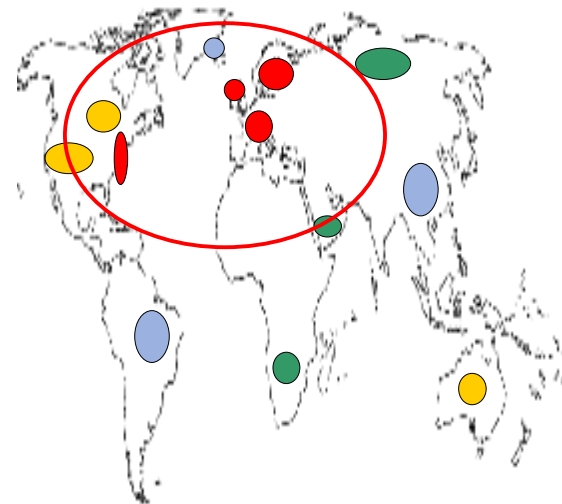
# Boliden Tara Mines Limited

**\$/Mwh costs 2002**



- 30 – 40 \$/MWh
- 20 – 30 \$/MWh
- ≤ 20 \$/MWh
- ≥ 50 \$/MWh

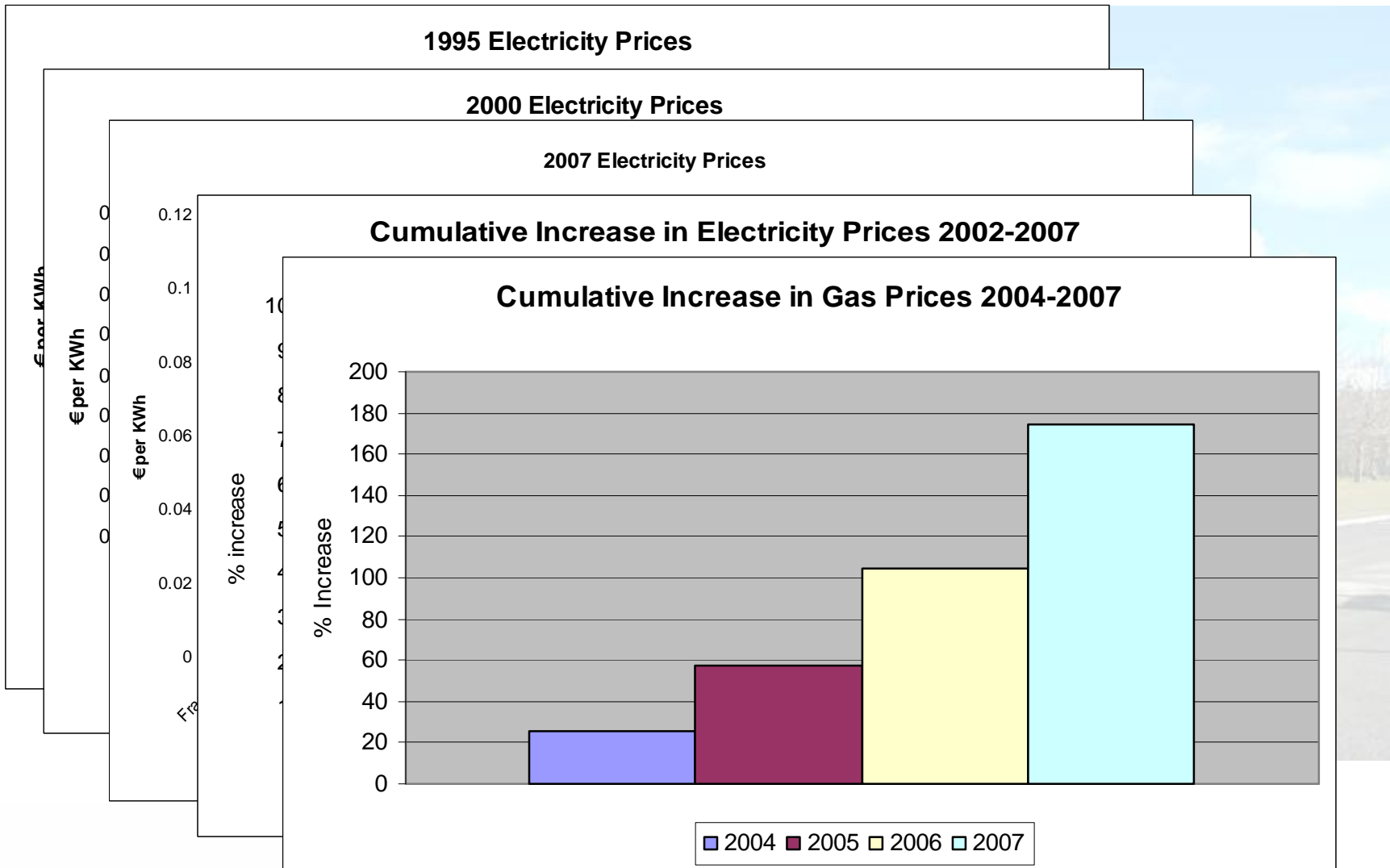
**\$/Mwh costs 2006**



- 30–40 \$/MWh
  - 20–30 \$/MWh
  - ≤ 20 \$/MWh
  - ≥ 50 \$/MWh
- Offrerat för industrier u skatt.



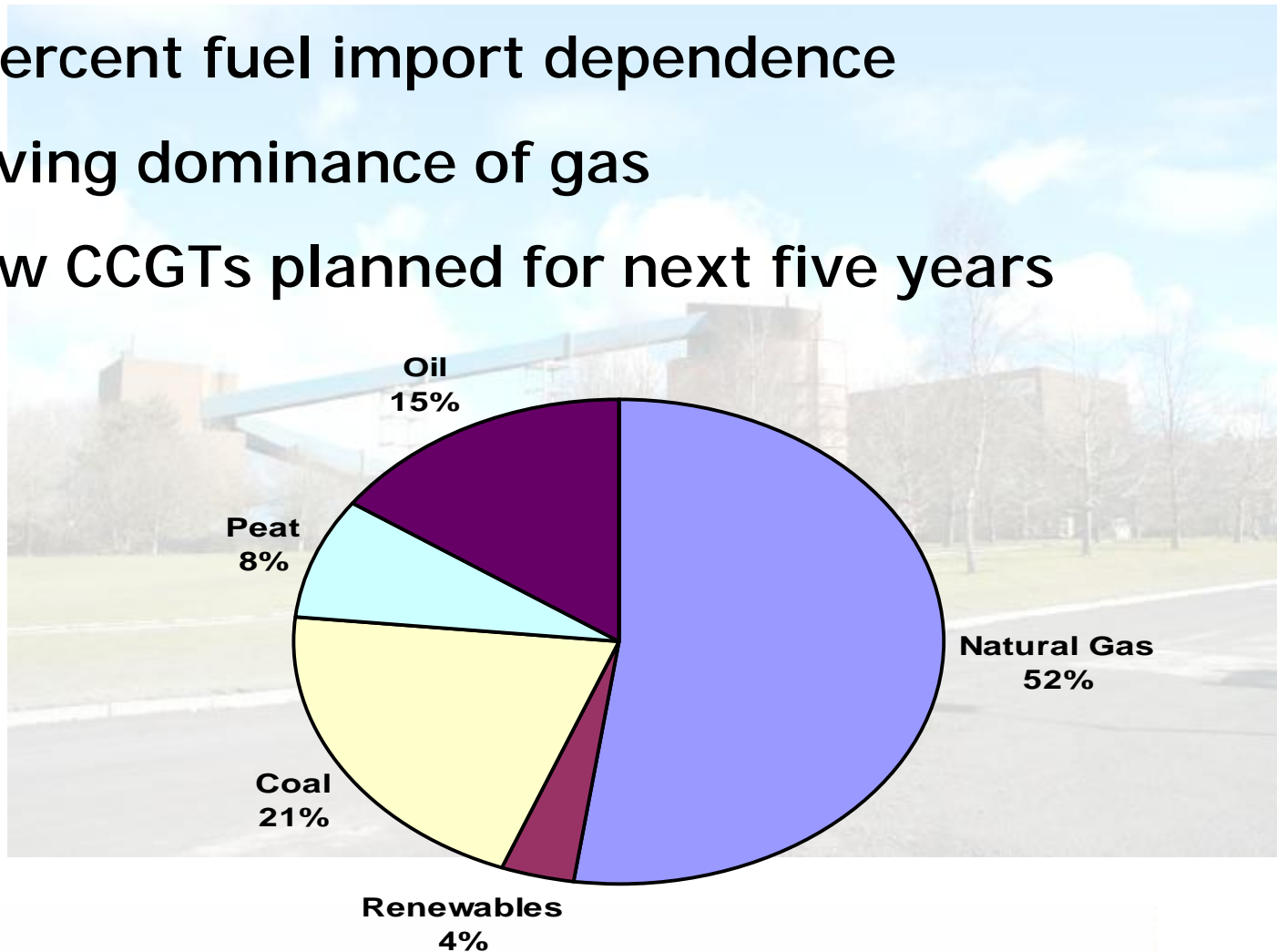
# Boliden Tara Mines Limited





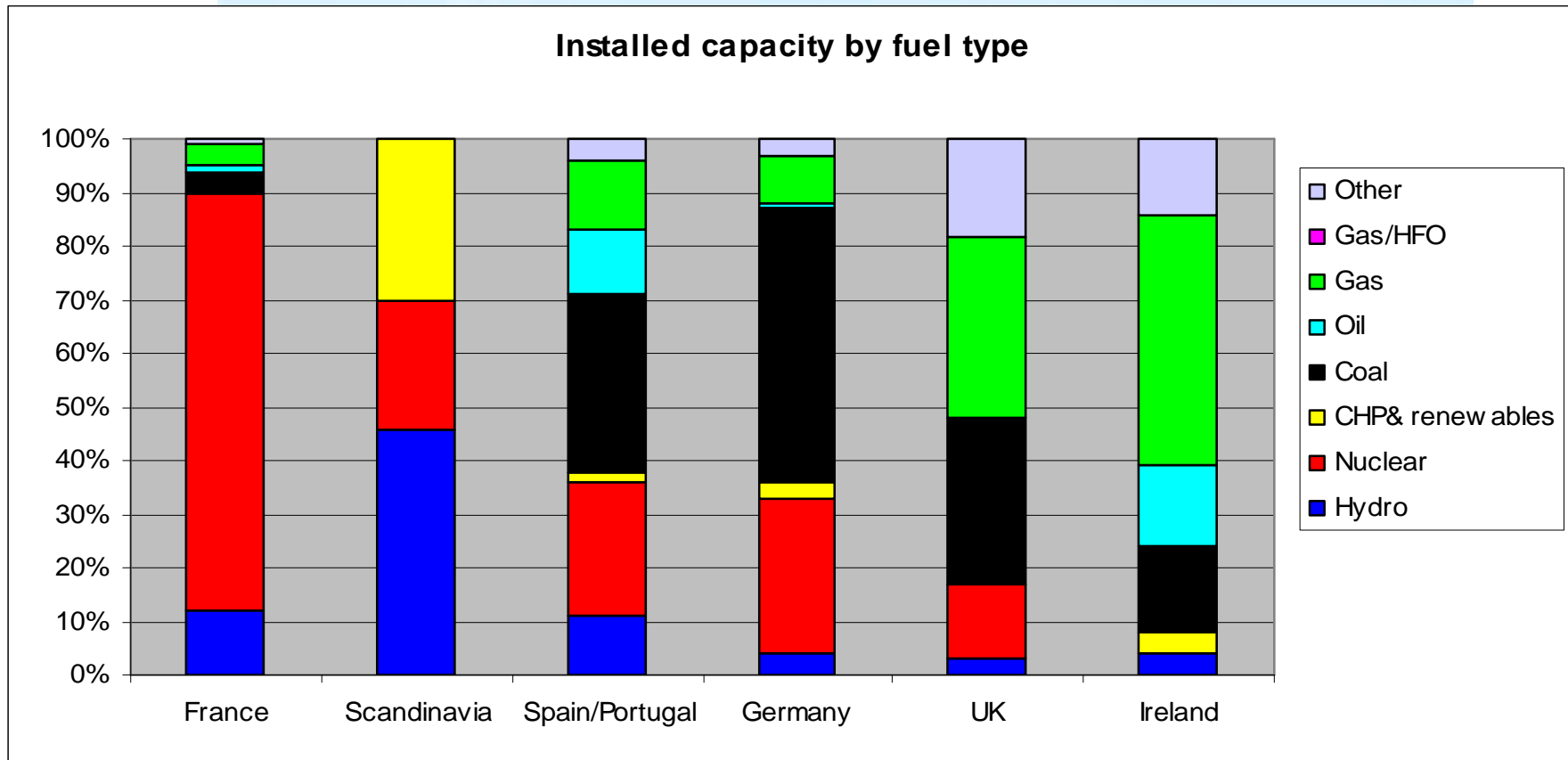
# Boliden Tara Mines Limited

- Ø 90 percent fuel import dependence
- Ø Evolving dominance of gas
- Ø 5 new CCGTs planned for next five years



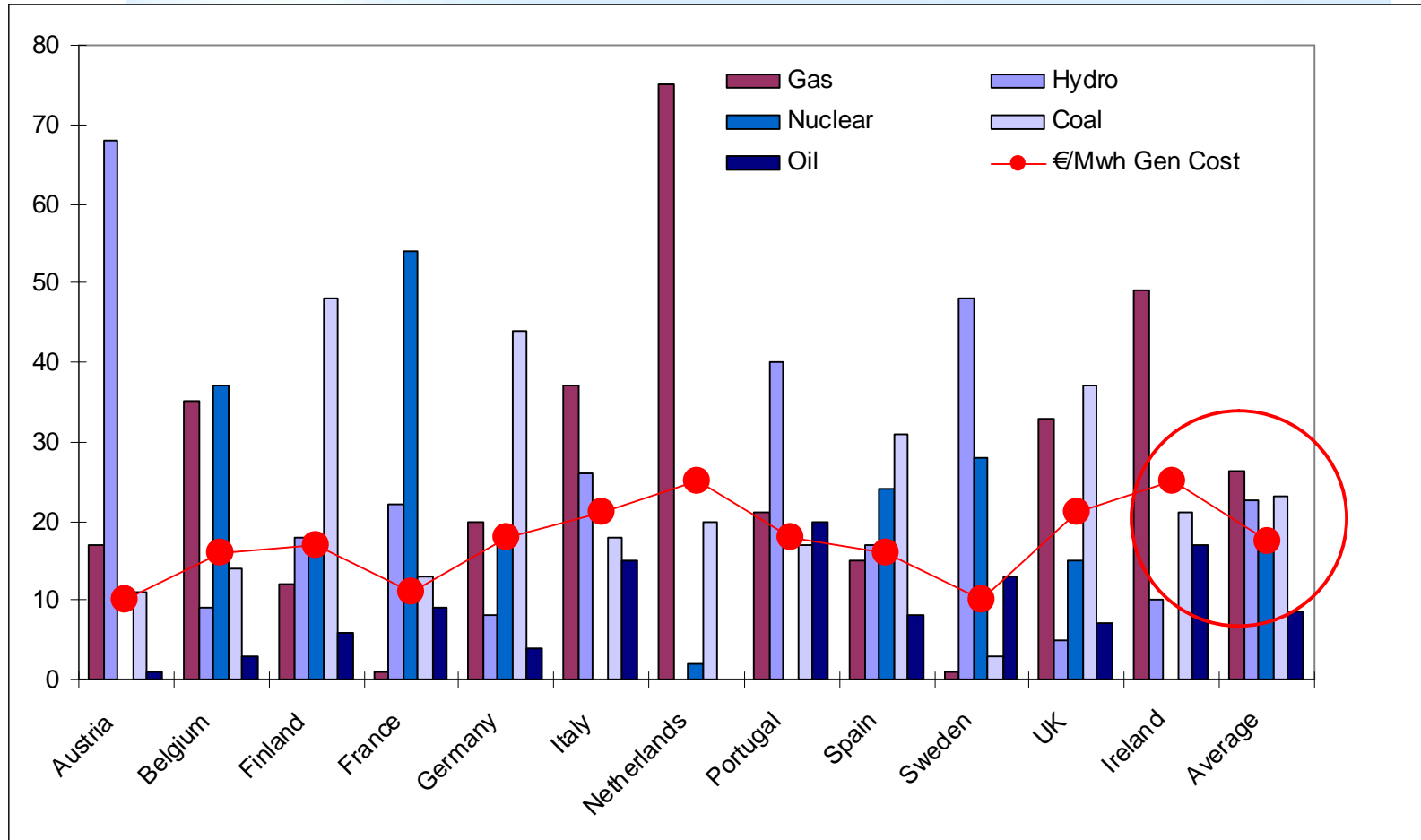


# Boliden Tara Mines Limited



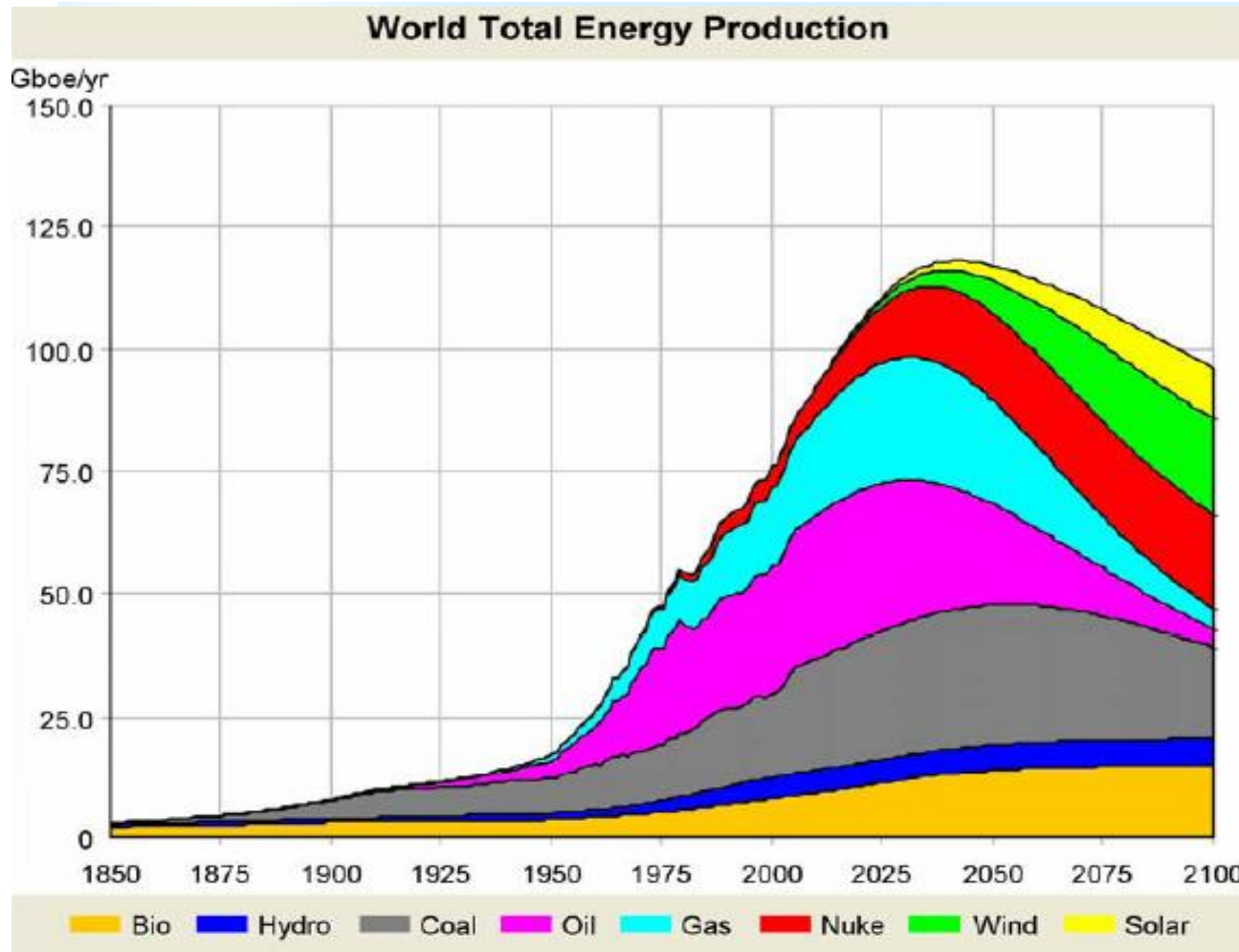


# Boliden Tara Mines Limited





# Boliden Tara Mines Limited

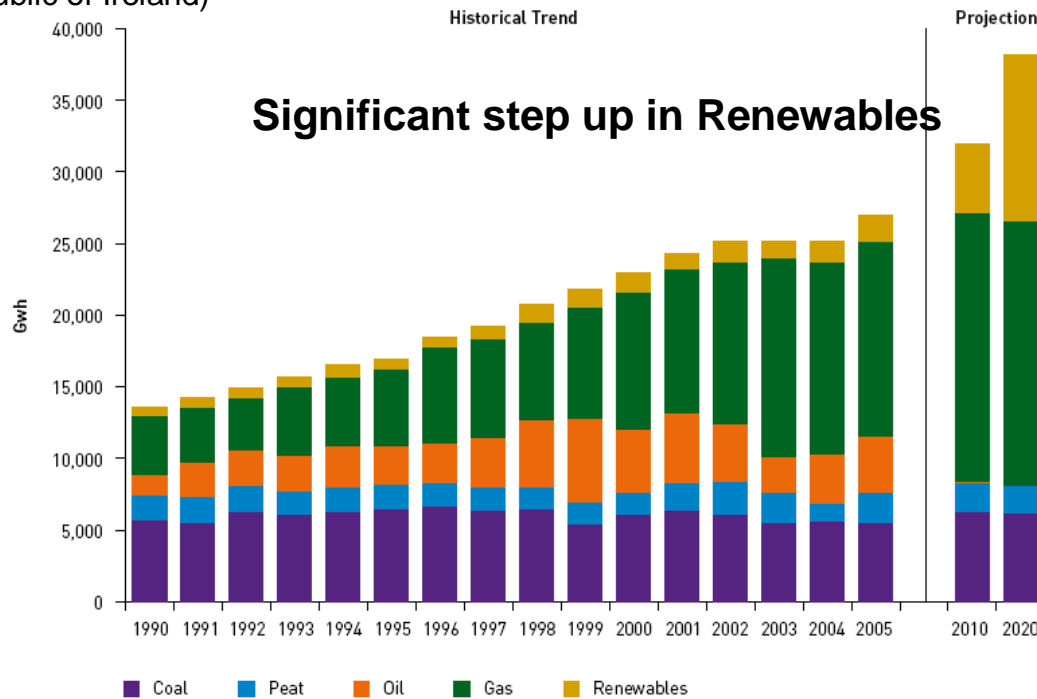




# Boliden Tara Mines Limited

## Electricity Generation by Fuel 1990-2020

(Republic of Ireland)



**Still strong reliance on Gas**



# Boliden Tara Mines Limited

---

- **Europe's reserves of oil and gas will be exhausted by 2025.**
- **By 2025 Europe will have to import its oil from the Middle East again.**
- **By 2025 Europe will have to import all its gas from Russia, or in LNG form from the Middle East or North Africa.**





# Boliden Tara Mines Limited

## MW's

	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
<b>Withdrawals</b>	-	-	230	-	309	405	351	-	-	<b>1,295</b>
<b>Additions</b>										
Tynagh		384								384
Aughinish		161								161
Huntstown 2			401							401
Aghada					430					430
Whitegate					400					400
	0	545	401	0	830	0	0	0	0	<b>1,776</b>
										-
<b>Wind</b>	0	204	280	280	750	750	0	0	0	<b>2,264</b>
(496Mwat end of 2005)										0
<b>Interconnectors</b>										0
North - South							350			350
East-West									500	500
	0	0	0	0	0	0	350	0	500	<b>850</b>

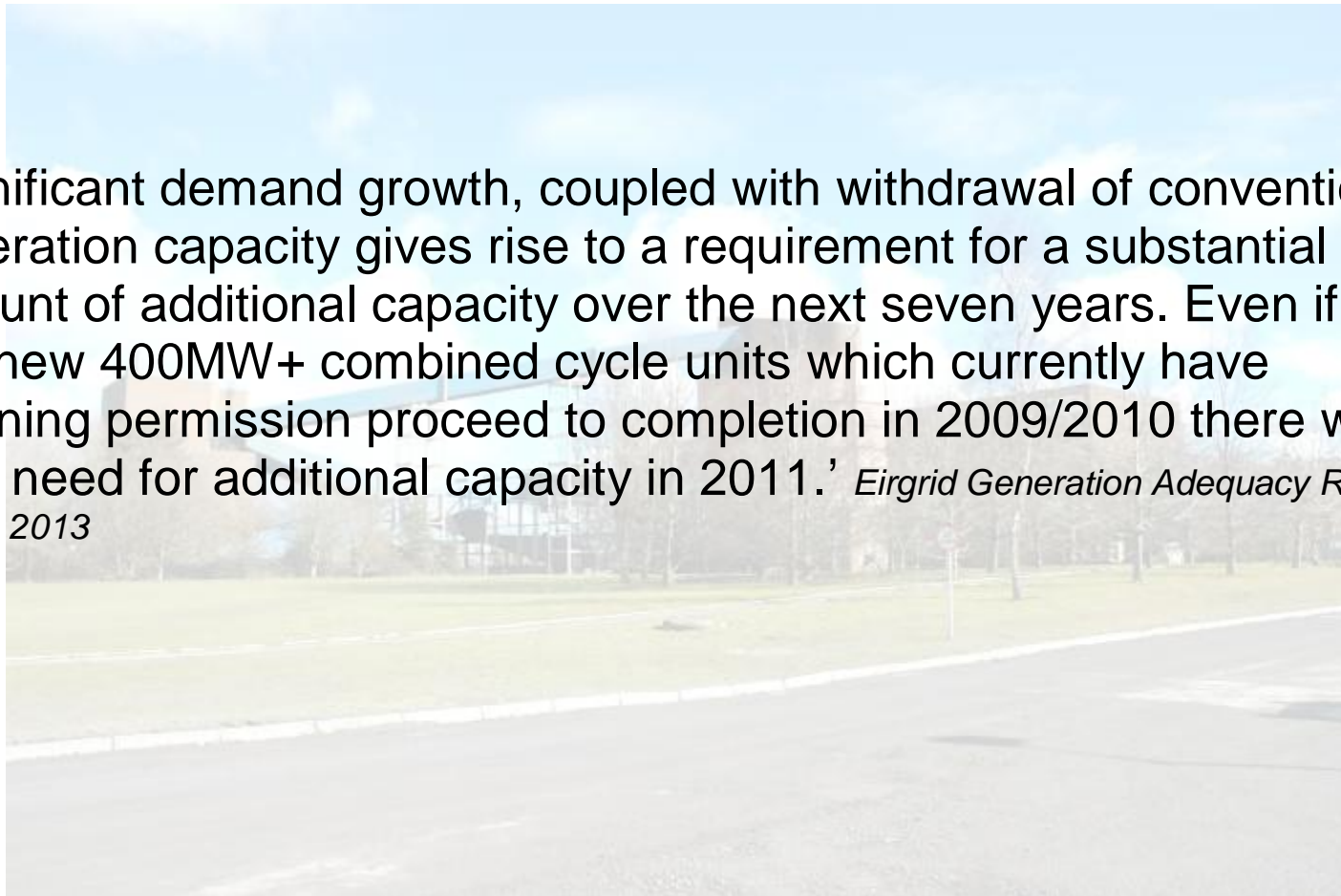




# Boliden Tara Mines Limited

---

- I 'Significant demand growth, coupled with withdrawal of conventional generation capacity gives rise to a requirement for a substantial amount of additional capacity over the next seven years. Even if the two new 400MW+ combined cycle units which currently have planning permission proceed to completion in 2009/2010 there will be a need for additional capacity in 2011.' *Eirgrid Generation Adequacy Report 2007 - 2013*





# Boliden Tara Mines Limited

- | **The serious nature of the difficulties we face have been highlighted**
  - n Eirgrid
  - n Deloitte
  - n Government Green & White papers
  
- | **Commitment is there to spend €8.5bn in the White paper / NDP**
  - n Realistically most is paid through TUoS and DUoS
  - n €20bn in grid/infrastructure investment needed to 2020
  
- | **However:**
  - n ESB / Bord Gais dividends should be ring fenced to energy
  - n NDP funding must be made available for infrastructure of strategic national importance – networks/interconnection
  - n Companies should be given tax incentives
  - n Ireland's competitive place in Europe has to be supported
  - n Unbundling is key deliverable to improve market competitive behaviour



# Boliden Tara Mines Limited

---

## I The concerns

- n Market deregulation is not creating price competition
  - n We will remain strongly fossil fuel import dependent into the future
  - n The targets for alternate energy generation are very challenging
  - n Interconnectors do not generate electricity
  - n That the open discussion needed on Nuclear will come too late.
  - n That in the short to medium term the capacity guarantee is not there.
  - n Older generating capacity – early withdrawals
-