

Part L and Beyond

What does it really mean for building designers?

Steve Nicholson
Delta Energy





**How
will you
know a
Good Building?**

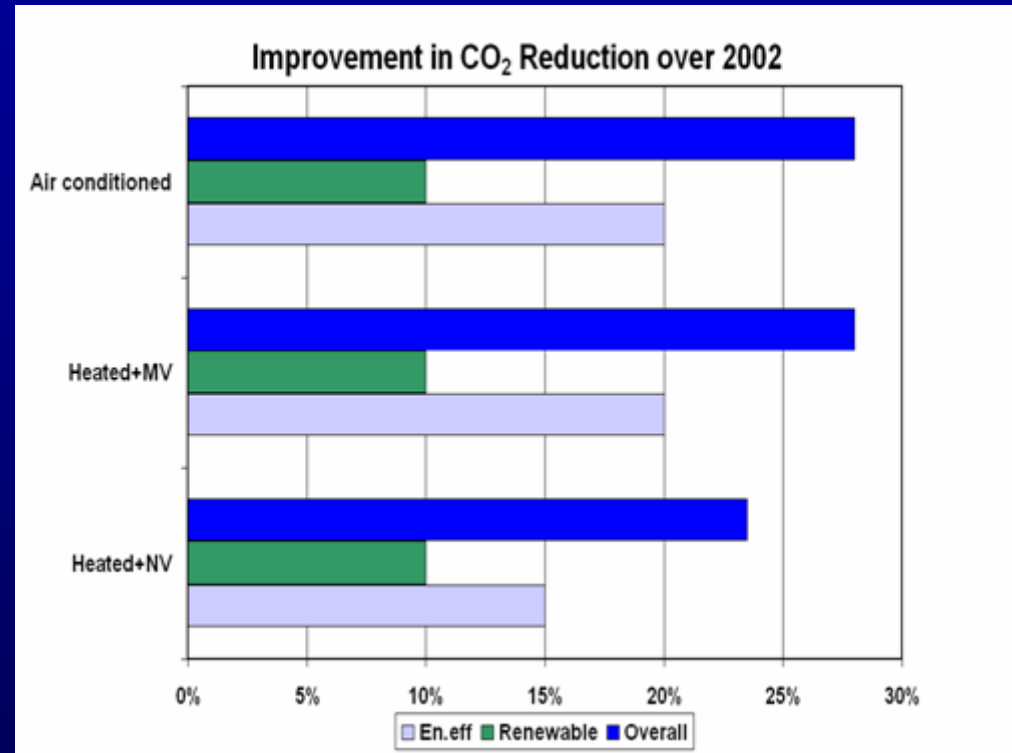
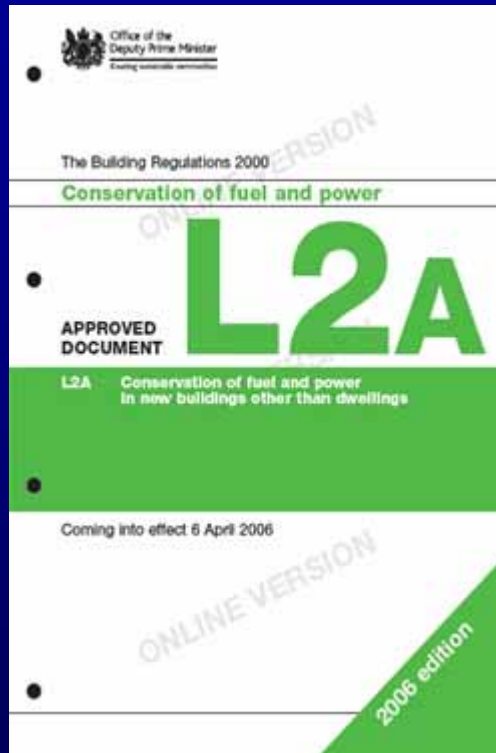
PRINCIPLE - Environmental Impact



Minimise adverse effects on the external environment.

Minimise emissions and select environmentally friendly materials and fuels.

Part L2A – New Buildings



23% - 28% Carbon Reduction over equivalent 2002 building.

Part L Headlines

- Compliance via carbon reduction
- Flexible design approach
- Renewable energy encouraged
- Airtightness
- Quality construction and commissioning
- Effective Communication

.....Challenging !

The Mayor's Energy Hierarchy

- i. Use less energy (Be **lean**)
- ii. Supply energy efficiently (Be **clean**)
- iii. Use renewable energy (Be **green**)

Moti V ation...

- Education
 - Application
 - Legislation
 - Taxation
 - Participation

Education (Awareness)



- Available
- Authorative
- Accepted



- Good Ideas
- Free
- 2nd Tier Documents



Application (Technology)

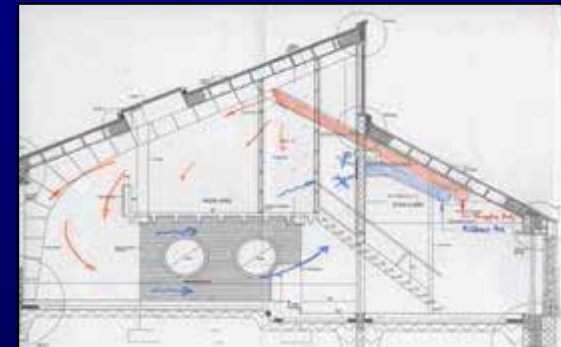
- **Building Envelope Performance**

- Insulation
- Air tightness (permeability)
- Thermal Weight
- Solar and internal gains



- **System Selection**

- Choice
- Operation
- Maintenance

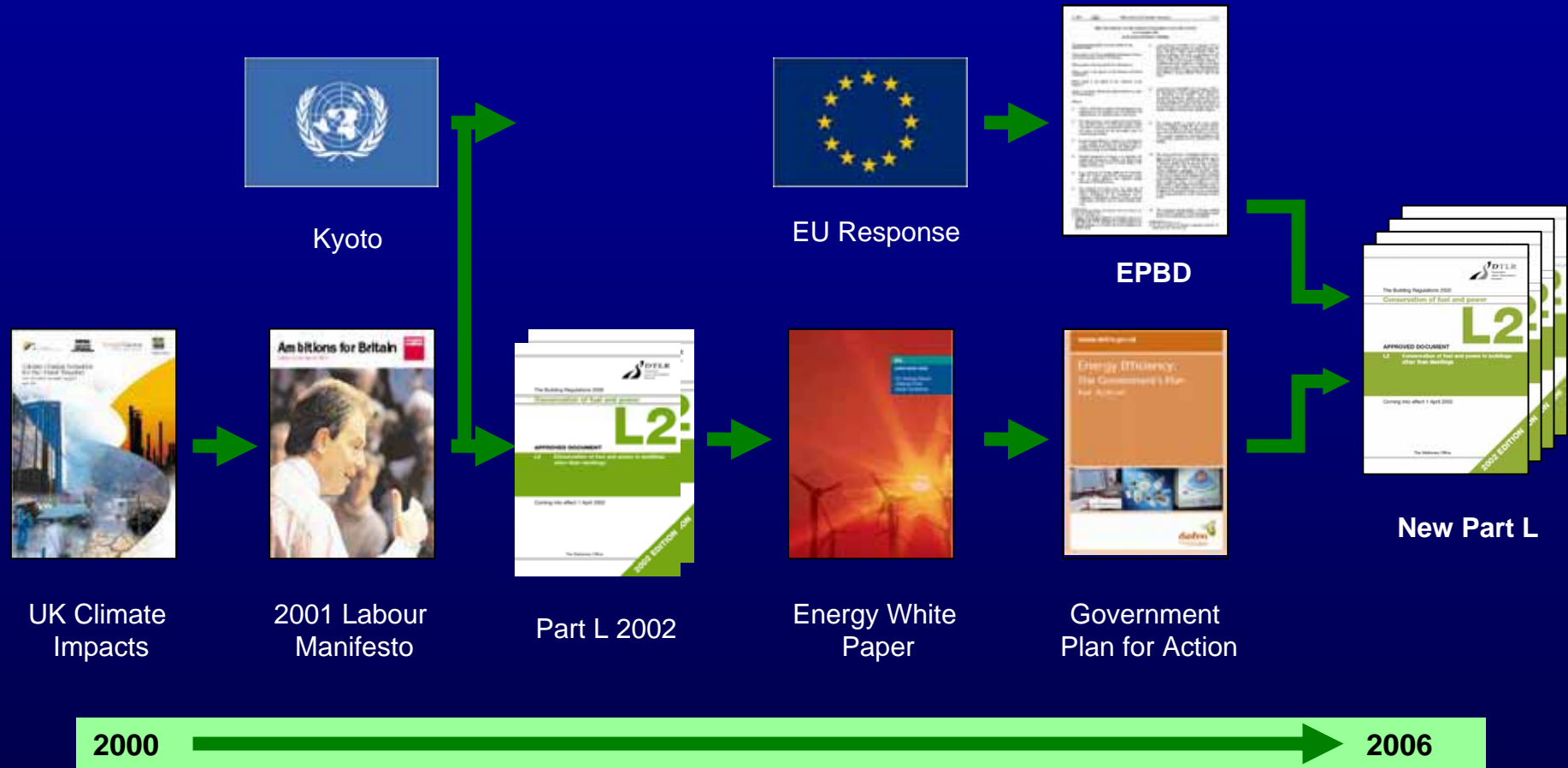


- **Energy Selection**

- Efficiency
- (Carbon intensity)



Legislation - The Road to Part L



Taxation

Climate Change Levy

- Electricity  0.43 p/kWh **(10 -15%)**
- Gas  0.15 p/kWh **(10 - 15%)**
- LPG  0.07 p/kWh

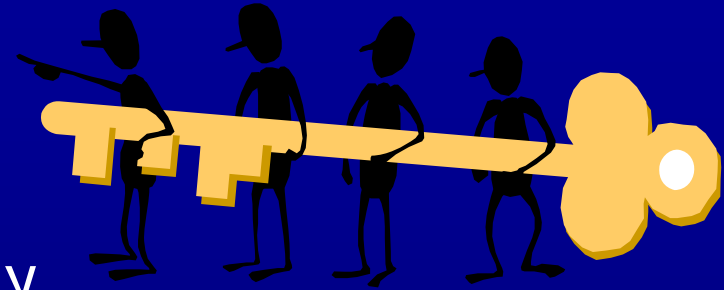
Exemptions for Good Quality CHP & Renewables

Enhanced Capital Allowance

Value Added Tax

Have they affected energy efficiency ?

Participation - The Integrated Design Team



- Appoint multi-disciplinary team early
- Include client representatives
- Ensure interaction
- Consider energy implications at every stage
- Get feedback from client throughout whole process
- Highlight life cycle costs implications
- Assess targets W/m^2 , kWh/m^2 , $£/m^2$
- Propose further options for energy efficiency
- Produce good documentation showing design intent

Our Role



Client	***	*	*	*	*	*****
Architect	****	****	***	*	*	**
Engineer	****	*****	***	**	*	**
QS	****	***	***	***		
Builder			*****	***	***	****
Planner	*****	***				

Conclusions

- Part L is challenging !
- Team working
- New thinking
- New knowledge
- New skills

Striding Edge - Helvellyn



Together we can meet the challenge

.....but take care !