

# THE ELECTRICAL PERSPECTIVE





### WHAT ARE THE OPTIONS FOR MORE ENERGY EFFICIENT LIGHTING?



#### ENERGY EFFICIENT LIGHTING



- Light-emitting diodes (LEDs)
- Can be retrofitted
- Recommend fittings where you can replace lamps yourself, reducing travel
- Recessed LEDs will need fire and acoustic rating
- 75% of fixed light fittings or lamps should be low-energy
- Dimmable switches can reduce electricity usage





# WHAT ARE THE OPTIONS FOR MORE ENERGY EFFICIENT WATER HEATING?



#### SOCKETS, SINKS AND COOKERS



- Instantaneous hot water taps
- No gas boiler required
- No heat loss through pipework
- Supplied from 13A socket-outlet
- Normally sited under the sink
- Power can be low as 1600w about half of boiling a kettle
- Air source heat pumps and ground source heat pumps can also heat hot water





# WHAT ARE THE OPTIONS FOR MORE ENERGY EFFICIENT COOKING?



#### ENERGY EFFCIENT COOKING



- Electric induction hobs more efficient than standard hobs
- Coils create a magnetic field and heat the pan directly
- No wasted heat energy
- Some may need individual hard-wired supply
- Others can use standard 13A socket
- Both are energy efficient





# WHAT'S THE REQUIREMENTS FOR SOCKETS IN A KITCHEN?



#### SOCKET-OUTLETS IN A KITCHEN



#### **BS 7671 says**:

- No specific number
- Should be installed correctly
- Accessible sockets for mobile equipment, e.g. toasters



#### SOCKET-OUTLETS IN A KITCHEN



#### SBS says:

- 6 in kitchen
- 3 above worktop
- 400mm above floor
- 150mm above work surface
- 350mm from internal corner
- Accessible switches required for hidden socket-outlets





# HOW FAR SHOULD SOCKETS BE FROM SINKS AND COOKERS?





#### SOCKETS, SINKS AND COOKERS

- Not possible to define an exact distance due to size differences in kitchens
- Any socket-outlet must be appropriate to its location
- Must be installed as far away from sink as possible
- Mount above sink height at least 300mm from sink bowl
- Don't put at rear of hobs





# ANY QUESTIONS?

