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**IEA/European Commission JRC/CEN-star  
workshop on: Compact Fluorescent Lamp Quality and Strategies to  
Phase-out Incandescent Lamps 26 February 2007**

**Market transformation strategy for promoting  
compact fluorescents in residential lighting in  
Sweden**

**International Energy Agency, Paris  
Kalle Hashmi  
Swedish Energy Agency**

# BACK TO THE FUTURE

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- FUTURE DEMAND FOR RESIDENTIAL LIGHTING TO INCREASE SUBSTANTIALLY
- **INCREASE IN THE NUMBER OF SENIOR CITIZENS**
- **LARGER HOMES & THE INSTALLATION OF MORE LIGHT FITTINGS PER HOME**

# MARKET TRANSFORMATION

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## RESIDENTIAL LIGHTING

**USING 10% OF TOTAL LIGHT (LUMENS) IN SWEDEN**

**CONSUMING 24% OF TOTAL LIGHTING ENERGY**

# MARKET TRANSFORMATION

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## RESIDENTIAL LIGHTING (INSTALLED NUMBERS)

■ <b>INCANDESCENTS</b>	<b>90 MILLION</b>
■ <b>HALOGEN</b>	<b>10 MILLION</b>
■ <b>FLUORESCENTS</b>	<b>30 MILLION</b>

# MARKET TRANSFORMATION

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- RESIDENTIAL LIGHTING
- MEAN LIGHTING EFFICIENCY Lm/Watt

■ RESIDENTIAL	20
■ COMMERCIAL	60
■ INDUSTRIAL	75

# MARKET TRANSFORMATION

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## CFL BARRIERS

- CONSUMER AWARENESS
- PRICE DYNAMICS
- CFL QUALITY COMPARISON
- CONSUMER PURCHASING BEHAVIOUR
- MARKET ENTRANCE BARRIER
- LACK OF INFORMATION TO CONSUMERS

# MARKET TRANSFORMATION

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## CONSUMER AWARENESS

**CONSUMER RECOGNITION & CONSUMER AWARENESS OF CFLs IS HIGH & THE CONSUMERS KNOW ABOUT SOME OF THE BENEFITS ASSOCIATED WITH CFLs.**

**OVER 80% AWARENESS**

**56% OF HOUSEHOLDS MAY HAVE TRIED A CFL**

# MARKET TRANSFORMATION

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## ■ PRICE

### LARGER RETAILERS

- LOWER PRICES
- NO CONSUMER INFORMATION
- VERY NARROW PRODUCT RANGE

# MARKET TRANSFORMATION

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## PRICE

- **SMALLER RETAILERS**
  - **HIGHER PRICES**
  - **SOME CONSUMER INFORMATION**
  - **BROADER PRODUCT RANGE**

# MARKET TRANSFORMATION

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- DECREASING CFL PRICES

**COULD THREATEN THEIR OWN POTENTIAL BY OVERLY COMPROMISING QUALITY, WITHDRAWAL OF PARTICIPANTS & THE LESSNING OF REAL COMPETITION?**

**WILL LOWER PROFITS/MARGINS SERVE AS A NEW BARRIER TO MASS MERCHANDISER STOCKING & PROMOTION , OR AN INCENTIVE?**

# MARKET TRANSFORMATION

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- CFL QUALITY COMPARISON

**MIX OF GOOD & POOR QUALITY CFLs  
ON THE MARKET**

**ONLY ONE CFL BRAND AVAILABLE AT  
EACH OUTLET ALLOWING NO BRAND  
COMPARISONS**

# MARKET TRANSFORMATION

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- CONSUMER PURCHASING BEHAVIOUR
- **CFLs NOT AVAILABLE AT EVERY OUTLET WHERE INCANDESCENTS ARE BEING SOLD.**
- **THE RANGE OF CFLs ON THE MARKET IS CONFUSING AND THE CONSUMERS DONOT KNOW HOW TO CHOOSE THE APPROPRIATE ONE FOR THEIR FIXTURES.**
- **LIMITED WATTAGE RANGES - MOSTLY 11w, 9w & 7w RANGE. SELDOM HIGHER WATTAGES AVAILABLE.**

# MARKET TRANSFORMATION

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- MARKET ENTRANCE BARRIER
- **INABILITY OF NATIONAL CHAINS TO TAILOR THEIR STOCKING & PROMOTIONAL ACTIVITIES TO SUPPORT MARKET TRANSFORMATION EFFORTS.**

# MARKET TRANSFORMATION

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- INFORMATION TO CONSUMERS (FRAGMENTARY)
- BRIGHTNESS (LIGHT QUANTITY ISSUE)
- LIGHT OUTPUT (LIGHT QUANTITY ISSUE)
- WARM COLOUR (LIGHT QUALITY ISSUE)
- COLOUR CONSISTENCY (LIGHT QUALITY ISSUE)
- LIFE PREDICTABILITY (COST ISSUE)
- UPFRONT PRICE (COST ISSUE)
- LUMINAIRE FIT/APPLICATION (USAGE ISSUE)

# MARKET TRANSFORMATION

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- ISSUES
- WHAT CONSTITUTES A GOOD CFL?
- HOW TO ENSURE CONSISTENT QUALITY OF CFLs IN THE MARKETPLACE?
- HOW TO ENSURE THAT THE RETAIL TRADE ONLY MARKETS HIGH QUALITY CFLS?
- HOW TO CREATE CONSUMER CONFIDENCE IN CFLs?
- HOW DOES A CFL MANUFACTURER QUALIFY TO ENTER THE SWEDISH MARKET?

# MARKET TRANSFORMATION

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- SWEDISH ENERGY AGENCY TO PURSUE
- PRODUCT QUALITY ASSURANCE
- INTERNATIONAL CO-OPERATION
- ENERLIN CO-OPERATION
- ECO-DESIGN CO-OPERATION
- FOSTERING STRATEGIC PARTNERSHIPS WITH RETAIL TRADE
- INCREASING PARTICIPATION ACROSS ALL CHANNELS
- EXPAND CFL CONSUMER EDUCATION

# MARKET TRANSFORMATION

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- **PRODUCT QUALITY ASSURANCE**
- **DEVELOP A MECHANISM THAT MARKETED CFLs DO MEET EUROPEAN QUALITY CHARTER REQUIREMENTS**
- **PROVIDE A BASIS ON WHICH SEA CAN REASONABLY DISQUALIFY A CFL THAT DOES NOT MEET THE NECESSARY PERFORMANCE CRITERIA**

# MARKET TRANSFORMATION

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- TO ASSURE CONSUMER CONFIDENCE

**A CONTINUAL QUALITY TESTING &  
REPORTING PROGRAMME NEEDS TO  
BE ESTABLISHED**

# MARKET TRANSFORMATION

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- QUALITY ASSURANCE TESTING
- PARAMETERS TESTED (EU QLTY CH)
- TESTING LABORATORIES (ACCREDITED)
- SAMPLE ACQUISITION (OFF-THE-SHELF)
- PERCENTAGE CFLs TESTED (20 %)

# MARKET TRANSFORMATION

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- TO CONTAIN PROGRAMME COSTS
- INTERNATIONAL COOPERATION
- **INTRODUCE DANISH (ENERGY SAVING TRUST) & BRITISH (ENERGY SAVING TRUST) CFL SPECIFICATIONS & APPROVED CFLs IN SWEDEN.**

# MARKET TRANSFORMATION

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- TO BROADEN THE CFL AVAILABILITY AT COMPETITIVE PRICES FOR SMALLER RETAILERS.
- INTERNATIONAL CO-OPERATION
- JOIN THE PURCHASING ACTIVITIES OF THE UK LIGHTING ASSOCIATION

# MARKET TRANSFORMATION

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- **INTERNATIONAL COOPERATION ADVANTAGES**
- **ACCESS TO CFL PERFORMANCE DATA FROM DENMARK & THE U.K.**
- **BETTER FOLLOW-UP OF NON COMPLIANT CFLs**
- **BETTER LEVERAGE TOWARDS MANUFACTURERS**
- **ENSURES A SUSTAINABLE SUPPLY OF HIGH QUALITY CFLS**

# MARKET TRANSFORMATION

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## CONSUMER INFORMATION

- ESTABLISH AN INTERNET PORTAL WITH DETAILED COMPARATIVE INFORMATION ON CFLs
- INFORM WHO SELLS THE CHEAPEST CFL IN CERTAIN WATT EFFECTS MEETING EU CFL QUALITY CHARTER REQUIREMENTS
- PREPARE & DISTRIBUTE POINT- OF-SALE INFORMATION MATERIAL ON CFLs

# MARKET TRANSFORMATION

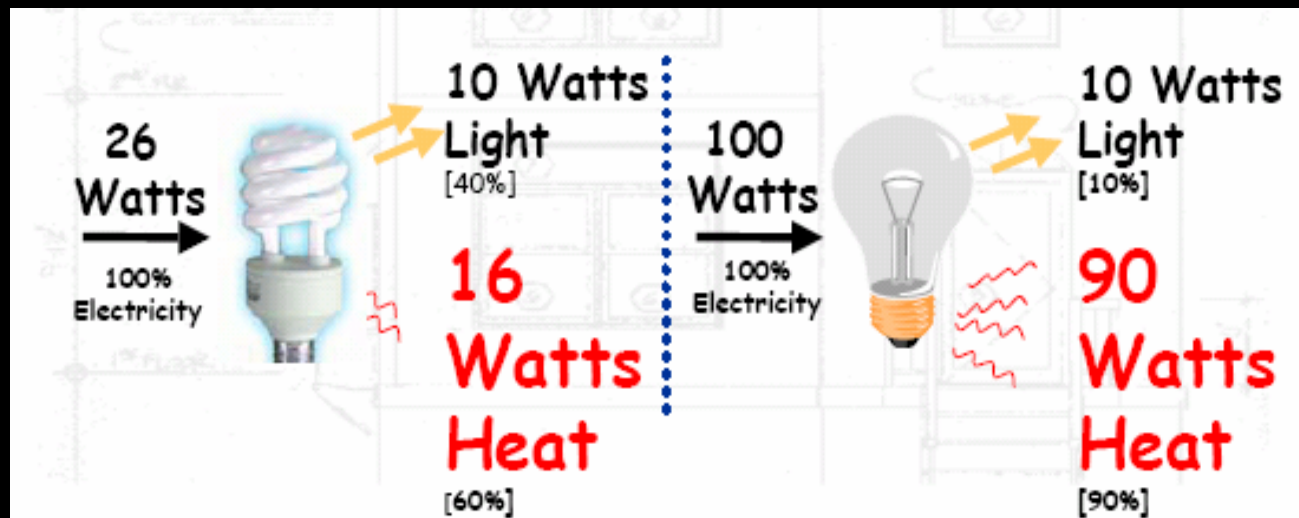
## INFORM THE CONSUMER WHOLE HOUSE APPROACH



# MARKET TRANSFORMATION

- INFORM THE CONSUMER

THERE ARE SMARTER WAYS TO HEAT YOUR HOME



# MARKET TRANSFORMATION

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- INFORM THE CONSUMER
- PROVIDE MORE USEFUL INFORMATION AND LESS "NOISE" IN THE PACKAGING TO MAKE IT SIMPLE AND PREDICTABLE FOR CONSUMER TO BUY CFL.
- FOR EXAMPLE, FOR THE SAME AMOUNT OF LIGHT AS A 60W INCANDESCENT CHOOSE CFL WITH 800 LUMENS OR MORE.

# MARKET TRANSFORMATION

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## RETAIL TRADE (AGREEING & GIVING)

**AGREEMENT BETWEEN SEA AND RETAILERS ON THE OBJECTIVES, MONITORING DUTIES, INCENTIVES & REWARDS**

**GIVING RETAILERS INCENTIVES TO PARTICIPATE IN THE CAMPAIGN THROUGH ACKNOWLEDGEMENT IN VARIOUS MEDIA**

# MARKET TRANSFORMATION

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## RETAILERS

- **MAKE THE CONSEQUENCES OF FAILURE CLEAR & CONCRETE TO CFL RETAILERS & CFL MANUFACTURERS**
- **FAILED CFLs TO BE DE – LISTED & CONSUMERS INFORMED OF PRODUCT FAILURE**
- **RETAILERS TO REMOVE FAILED CFLs FROM THE SHELVES AT THE MANUFACTURERS COST**

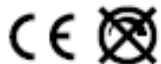
# MARKET TRANSFORMATION

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- ALTERNATIVE STRATEGY
- STRIVE TO WORK WITHIN EXISTING MARKET STRUCTURES. IF IT FAILS...
- SET UP A SUPPLY CHANNEL THROUGH POOLED CFL PROCUREMENT ON BEHALF OF SIMILAR END-USERS

**Energy**
  
**A**
  
 A B C D E F G

**11 W**



570 Lumen  
 11 Watt  
 10000 h

IKEA of Sweden AB  
 Box 702  
 SE-343 81 Älmhult

Denna lågenergilampa är framtagen i samarbete med  
 BLICC Sverige, Business Leaders Initiative on Climate  
 Change, ett företagsnätverk som arbetar för att minska  
 utsläppen av växthusgaser. Läs mer på [www.blicc.se](http://www.blicc.se)



Opartisk och  
 kostnadsfri  
 rådgivning

Fråga rådgivarna 08-29 11 29  
[www.energiradgivningen.se](http://www.energiradgivningen.se)

Energirådgivningen är ett samarbete mellan  
 25 kommuner i Stockholmsregionen.



Det här är inte bara en  
 lågenergilampa utan  
 också ett verktyg mot  
 växthuseffekten.

Om du byter ut en  
 glödlampa mot denna  
 lågenergilampa så  
 minskar dina utsläpp  
 av koldioxid.  
 Dessutom sparar du  
 flera hundra kronor!

Jämför själv:	Vanlig glödlampa	Lågenergi- lampa
Inköpskostnad	70 kr (10 st)	45 kr (1 st)
Energikostnad*	60 W x 10000 tim = ca 600 kr	11 W x 10000 tim = ca 110 kr
<b>Totalkostnad</b>	<b>670 kr</b>	<b>155 kr</b>

Lågenergilampen håller tio gånger längre än glöd-  
 lampan och använder bara en femtedel av energin.  
 \* Beräkningen baseras på ett totalt elpris på 1 kr/kWh.

# MARKET TRANSFORMATION

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## FUTURE INTERESTS

- HARD - WIRED CFL FIXTURES
- DEVELOP THE MARKET THROUGH INTERNATIONAL CO-OPERATION
- COMPLEX (MANY COMBINATIONS OF LAMPS, BALLASTS, REFLECTORS, LENSES)

# MARKET TRANSFORMATION

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- HIGHER WATTAGE CFLS ????