Empowered lives.
Resilient nations.

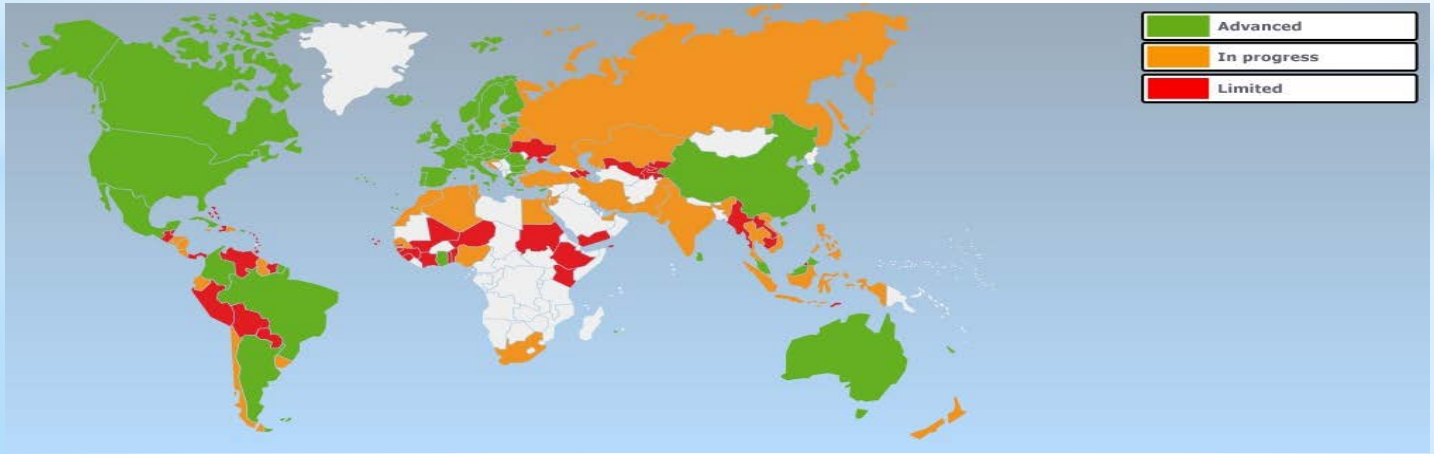
Transforming the Market to Efficient Lighting in Ukraine

Started 2011
6.5 million 5 years project

5 COMPONENTS

Prepare and set-up national policy framework to promote EE lighting
Improved QA/QC framework for EE lighting market
Efficient lighting demonstration in municipal and educational sector
Improve EE Lighting product penetration into the residential sector
Replication and dissemination of the Project results

5 millions tons of CO2 reduction
5,6 millions MegaWatt-h
Rise awareness and Double EE Lighting market growth rate
Improve consumer rights regarding quality of power supply
Rise barriers before low – quality lighting products



Legislative initiatives

- Studies

"Study of International and Ukrainian legislation and regulations on fluorescent bulbs collection, disposal and utilization"

"Study of National and international norms, standards and legislation promoting energy-efficient technologies for lighting"

- Regulations' Drafts Submitted

Draft Resolution of the Cabinet of Ministers "On Certain Issues related to collection, storage and disposal of electric and electronic equipment wastes"

Draft Law of Ukraine "On Amendments to the Law of Ukraine On Energy Saving "- phase-out of incandescent bulbs

- Proposals

Draft Law of Ukraine "On Energy-Efficiency"

Raising awareness: PR media campaign

Empowered lives.
Resilient nations.

- Radio
- TV
- Press
- Social networks
- Leaflets
- Electricity bills

Educational campaign for school children:

Empowered lives.
Resilient nations.

Started as Art Contest

Educational materials

Goes with bulbs replacement

Creative ways to achieve the same goals:

250 schools in all regions

Media support

Parents google for information

PILOT PROJECTS FOR MERCURY COLLECTION IN RIVNE AND KAMIANETS

Empowered lives.
Resilient nations.

- Technical issues
- Too many rules and regulations (5 licenses, easier to throw away than to dispose properly)
- Lack of financing
- Formally possible to implement on the community level, but in reality needs to be pushed by the national government
- What we do (surveys, legislation, wide discussions)

Outdoor (street) lighting

Empowered lives.
Resilient nations.

- Sadjava village pilot project

15 LED lights have been installed in the village main street 80% reduction of consumption

- Ten-fold increase of operation period; capability to withstand low quality power supply
- The opening has been accompanied by newly established annual international cultural festival giving thereby additional media coverage
- Bankable projects
- Great social effect, road safety

Outdoor park lighting

- EE CFLs specifically designed to withstand adverse winter weather conditions
- 700000 tourists yearly visiting the city will be able to see for themselves the stunning efficiency of a up-to-date technologies

Smart light management

Empowered lives.
Resilient nations.

New way to save energy

Economic effect

Replicability

Up to 30% possible reduction &

better quality of lighting

+ retrofitting Incandescent to CFL

Staircases lighting

Empowered lives.
Resilient nations.

4 watt instead of 40-100 watt (LED)

10 times extension of operation period

Positive and promising directions providing reliability, energy savings and bankable solutions.

Results from pilot projects

		Number of light sources	Wattage , kWt/h	In-service life power consumption kWt/h	Project costs, $	In-service life Savings MWt/h	In-service life Savings, $	In-service life Savings of CO2, t	In-service life Savings $/ton CO2	
Lugansk	Retrofit									
	CFL	2300	0,046	3 260 332,8	4770	14 458,9	1 807 358,4	14459	0,33	
	Incandescent lamps	2300	0,25	17 719 200,0						
Berdyansk	Park outdoor lighting									
	CFL	500	0,02	308 160,0	3629	1 232,6	154 080,0	1233	2,94	
	Incandescent lamps	500	0,1	1 540 800,0						
Sadjava	Outdoor (street) lighting									
	LED	15	0,021	30 334,5	3422	186,3	7 453,6	186	18,36	
	Incandescent lamps	15	0,15	216 675,0						
Dobrotvir	Staircase lighting									
	LED	66	0,004	57 816,0	4257	1387,6	55 503,4	1388	3,07	
	Incandescent lamps	66	0,1	1 445 400,0						
	In-service Life Total Savings, MWh					17 265,4				

Empowered lives.
Resilient nations.

Lesson learned

Empowered lives.
Resilient nations.

- Energy efficient lighting is not only CFL
- Importance of removing barriers such as mercury – phobia
- CO2 Savings could be found in other types of pilot projects
- Importance of education and information
- Flexibly push for the changes on all levels