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sense and simplicity

Energy Efficient Lighting

- A Triple Win for People, Environment and Economy -

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Global economic crisis

Climate crisis

Energy crisis

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11month pay-back: Steel Factory

➢ 50% energy saving

Scope

- 4000 luminaries

Electricity saving

- Energy saving: 55%
- Released electricity: 2,5MW
  = consumption of 6.500 households

Financial impact

- Savings: 30 MLN RUB p.a.
- Pay-back period: 11 months

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9 month pay-back: Metal plant

➢ 50% energy saving

Scope

- 84 luminaries

Electricity saving

- Energy saving: 54%
- Released electricity: 50,4kW

Financial impact

- Savings: 700k RUB p.a.
- Pay-back period: 9 months

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2,6 years pay-back: Public street lighting

➢ 50% energy saving

Scope

- 755 luminaries
- Lighting controls

Electricity saving

- Energy saving: 51%
- Released electricity: 113kW

Financial impact

- Savings: 1,5MLN RUB p.a.
- Pay-back period: 2,6 years

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Savings in all applications

asimpleswitch.com

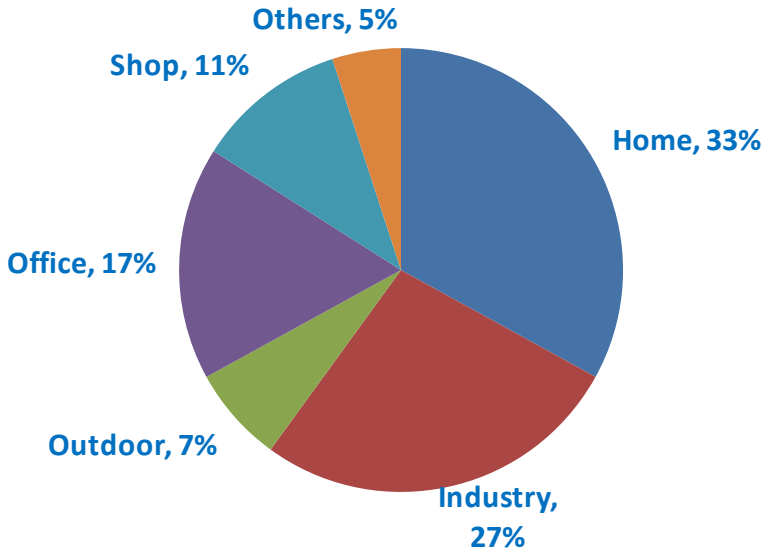
At home

Outdoor

Offices

Shops

Electricity consumption in Lighting per segment



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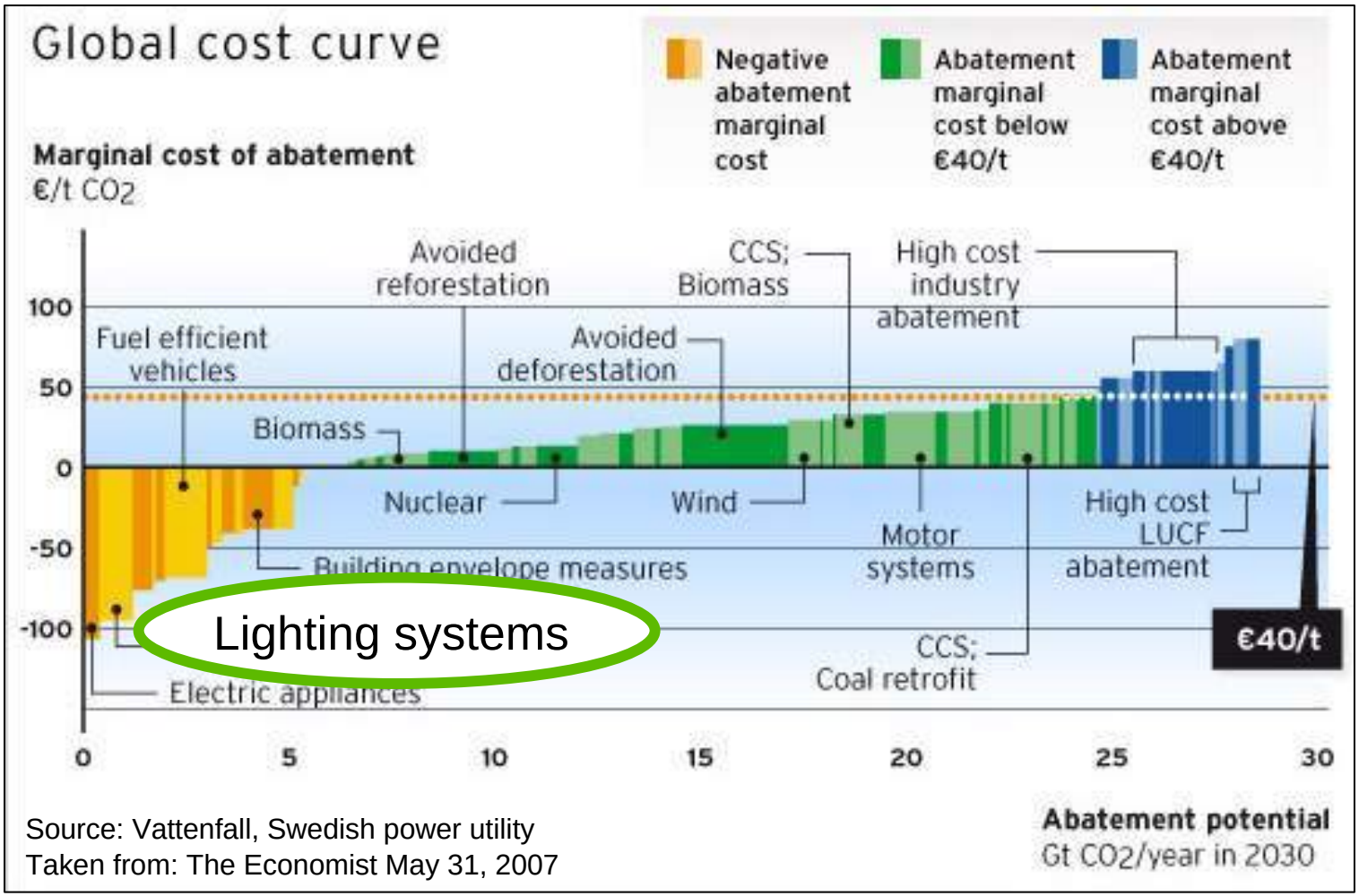
Lighting is most economic in energy & CO_2 saving



Source: Vattenfall, Swedish power utility
Taken from: The Economist May 31, 2007

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Energy efficient lighting increases comfort

Scope

- Street lighting

Electricity saving

- Energy saving: 50%

Light quality

- Lightlevel: +100%

Safety

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Energy efficient lighting: a triple win

- **End-users:** lower costs, better quality light
- **Environment:** lower energy usage, lower emissions
- **Economy:** lower costs, greater competitiveness, green jobs

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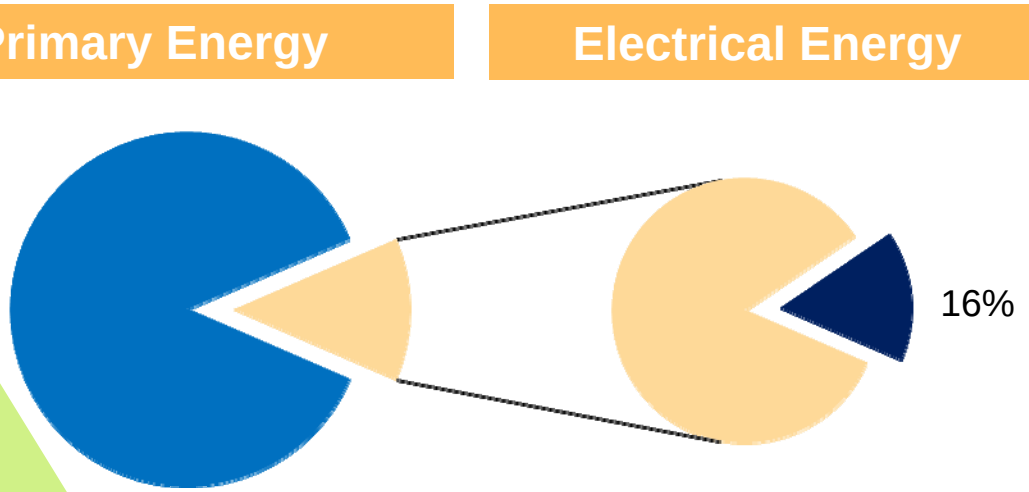
The huge impact of Lighting

- Lighting consumes 16% of all electricity within Russia
- Lighting consumes 19% of all electricity in the world (source IEA)



Key issues

- Rising energy prices
- Global climate change
- Security of energy supply
- Economic growth

Value proposition = Energy efficient lighting

Savings of 40% are possible

Today

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It should go faster ….

Current lighting market situation

- Up to **75%** of all lighting currently installed is old less energy efficient
- New energy efficient **solutions exist** for all segments
- Tomorrow we will have even more solutions (LEDs)

But:

- The current market **renovation** rates are too slow ! (e.g. Street lighting 3%, Office Lighting 7% etc)

Huge potential for energy saving

Area of lighting	Energy saving	CO_2 & $ savings per light-point per year	
Road lighting	57%	132 kg CO_2	$ 33
Shop Lighting	80%	140 kg CO_2	$ 36
Office & Industrial Lighting	61%	93 kg CO_2	$ 25
Home Lighting	80%	41 kg CO_2	$ 10
LEDs	80%	41 kg CO_2	$ 10

Potential savings

	Russia	*Global*
Electricity cost/yr (Bln €)	up to 5	120
CO_2 emissions/yr (Mio tons)	up to 32	630
Power plants (at 2TWh/yr)	up to 30	600

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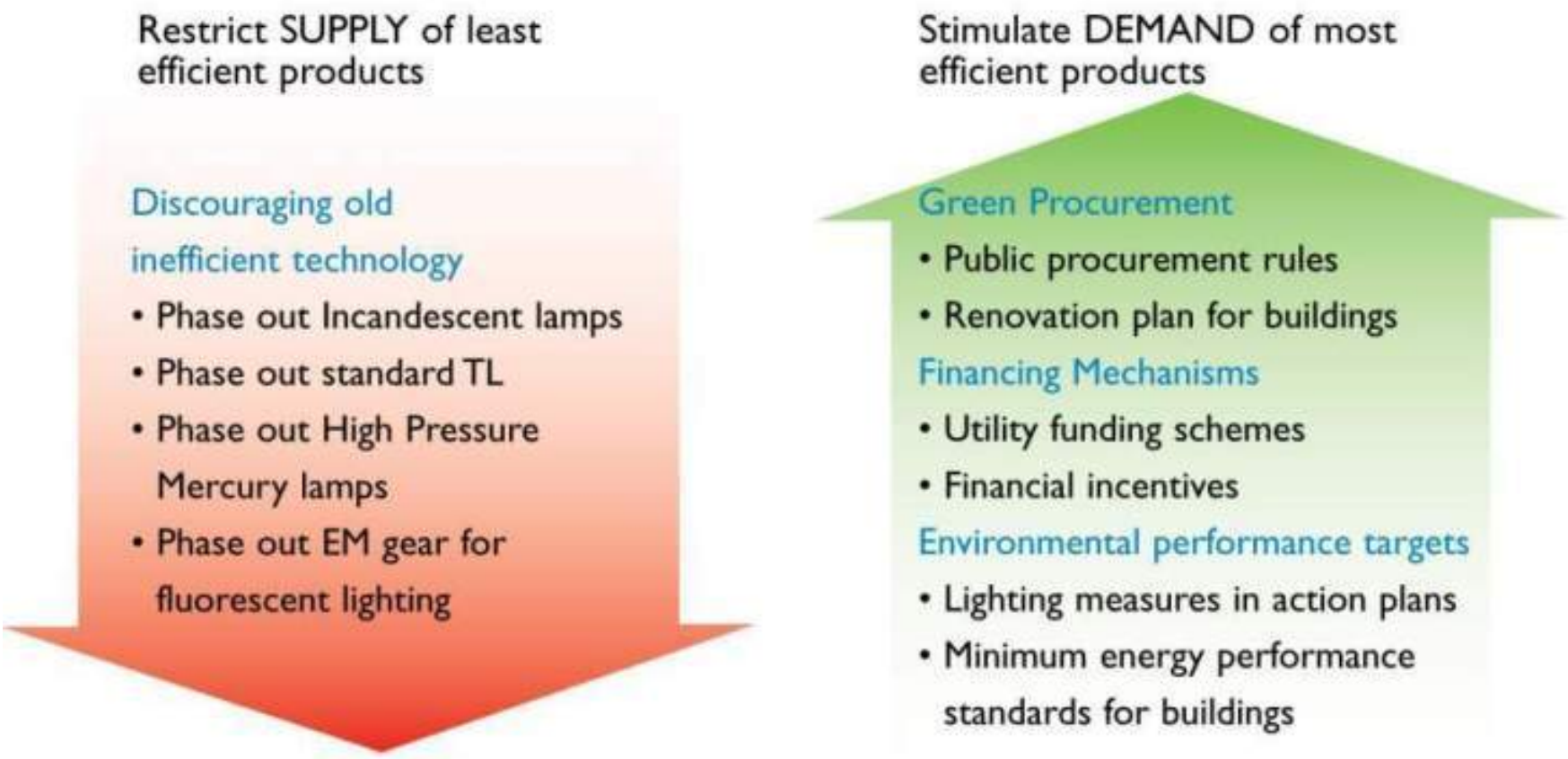
The new law on energy efficiency tackles some, but not all possible measurements



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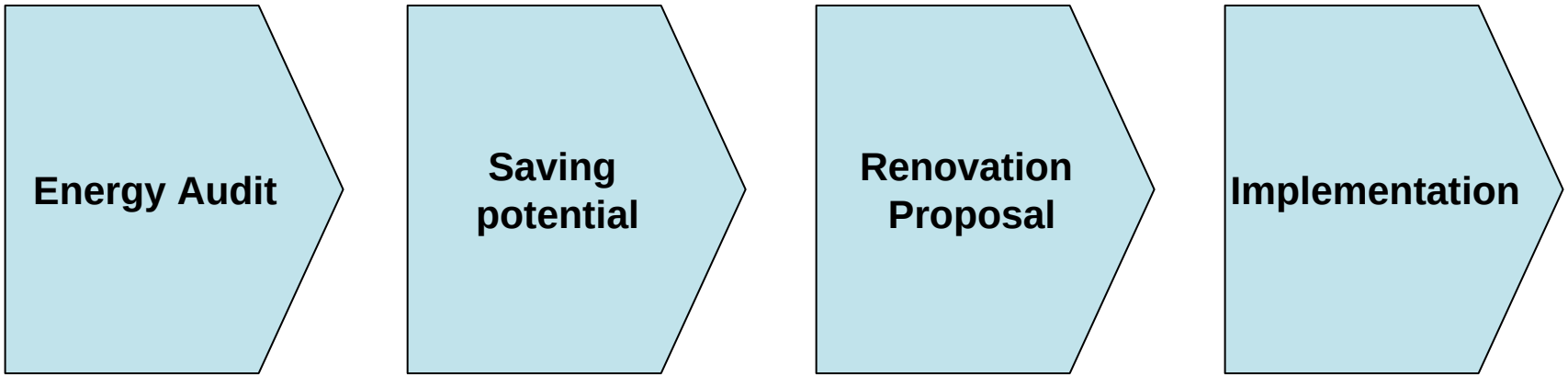
Philips offer to our partners



YOUR ENERGY SCAN

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Let’s get started

- Lighting can play a big role in energy efficiency
- We invite everyone to do more: we have the technologies, people and products
- Legislation is in place, or on its way
- What we are waiting for?

The time to act is now


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The benefits of innovative energy efficient Lighting

Our customers benefit from …

- Up to 80% less costs through reduced energy and maintenance bill
- Attractive investments with pay-pack periods from 1-4 years
- Higher turnover by attracting more customers and more alert and active staff
- An ecological image by using state-of-the art energy saving solutions
- More safety for the staff and the production process

Because our technology offers …

- Higher energy efficiency
- Longer life time and higher reliability
- Better light quality
- Less hazardous substances

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Industry lighting

>50% energy saving

Features/Enterprise	**Novolipetsky metals plant**	**Severstal (project for 2010)***
Place	Machine shop	Cold-rolled mill production
Types of luminaires	HPL 1000 W to Cabana HPI 400 W	HPL 1000 W to Cabana HPI 400 W
Number of luminaires, pieces	84	4200
Decrease of energy consumption per year, kWh	from 753.270 up to 345.576	from 28.234.960 up to 13.140.116
Decrease of energy consumption per year, rub	from 1,4 ml.rub up to 673 thousand rub	59 ml rub up to 27 mlnrub
Released capacity of installation, kW	50,4 kW	2,5 mega W
Energy-saving	54%	55%
Payback period	8,7 months	11 months
Decrease of expenses for electricity in case of replacement of all lamps, ml. rub	from 13 up to 5	from 210up to 96

*estimated data in accordance with this project

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Outdoor lighting

Projects implemented in 2009

➢ 50% energy saving

Features/City	**Krasnoyarsk** *	**Makhachkala** *
Types of luminaires	Selenium with Chronosense	Selenium with Chronosense
Number of luminaires, pieces	755	44
Decrease of energy consumption per year, kWh	from 1.230.000 up to 599.000	from 40.700 up to 20.350
Decrease of energy consumption per year, rub	from 2,9 ml. rub. up to 1,4 ml.rub.	from 128 thousand rub up to 65 thousand rub
Released capacity of installation, kW	113 kW	4,4 kW
Energy-saving, %	51%	50%
Payback period	2,6 years	4,5 years
Decrease of city expenses for electricity in case of replacement of all luminaires, ml. rub	from 120 to 55	from 43 to 18

*Krasnoyarsk - biggest city of East Siberia with population of 950 000 people

*Makhachkala – capital of Dagestan republic with population of 460 000 people