ELENA - NEWLIGHT
A story on aggregation of public lighting projects

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What to share with you...?

• Idea behind NEWLIGHT
• Key challenges and solutions for up-scale investments in energy efficient public lighting
• Recommendation (replication potential)
NEWLIGHT Idea/Objective

57 local authorities bundled for only one purpose: efficient and effective project execution
Introduction – Main Facts

Project financed by ELENA facility (EIB)

Project start: October 2015

Duration: 36 months

Final Beneficiaries: 57 cities and municipalities

Overall goal: Investment in reconstruction of public lighting, min. 20 million EUR
Introduction – Main Facts (2)

Total budget: 790 000 EUR (TA)

ELENA (EIB) co-financing: 711 000 EUR (90%)
www.eib.org/elena

Co-financing from regional authorities:
Zagreb County and Krapina-Zagorje County
79 000 EUR (10%)
Key Feature: Bundling

Improved access to finance
Better investment opportunity
Transaction costs lower
Risks lower

Downside of Bundling
Large number of stakeholders
Long preparation and decision making
Project management and communication
NEWLIGHT Idea/Objective

Contract modernization in 36 months in three phases:

Phase I - Energy audits/inventory
Phase II - Model Contracts (D&B, EPC, PPP)
Phase III - Public procurement

Phase I: 12 months
Phase II: 12 months
Phase III: 12 months
NEWLIGHT Key Challenges

Insufficient Baseline data - methodology for energy audits had to be developed.

Undeveloped ESCO market in Croatia – facilitation service mandatory!

Low energy prices resulting in long payback periods (8,2 eurocents on average)

Legal aspects of EPC/PPP – no projects (good examples) to learn from
NEWLIGHT Outputs

1. Energy audits of public lighting
   App. 70,000 luminaires in total
   App. 55% of total project cost (!)
   Specialized software/mobile app developed, GIS based – this ensured digitalization of 2,1 million attributes

2. Action plan for public lighting reconstruction
   Custom for each city/municipality
   Officially adopted by city/municipality council
Public lighting Energy Audits
Action plans

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<th>Broj svjetiljki na prometnim raskrižjima</th>
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Slika 5.2 Usporedba troškova prije i nakon modernizacije financirane putem Ugovora o energetskom učinku
Izvor: REGEA
NEWLIGHT Outputs

3. Tender process - reconstruction of public lighting

Goal: investment cost covered by energy savings
Preparation of tender documentation, legal advice

Three types of documentation where created:

a) Design&Build (D&B)
b) Energy Performance Contracting (EPC)
c) Public Private Partnership (PPP)

4. Support in obtaining co-financing
ESIF and other available funding sources
NEWLIGHT Outputs

5. Facilitation services (three pillars)

Pillar I - More than 10 meetings organized on County level

Pillar II - More than 300 bilateral meetings with local authority representatives (5 per city/municipality)

a) Energy Audits and Action plan information
b) Contract models and financial modeling
c) Assembly participation
d) Procurement documentation
e) Procurement process

Pillar III - More than 30 meetings with ESCO market players and Financial institutions
NEWLIGHT numbers and figures

1. More than 70 000 luminaire audited
   over 2,1 mil. attributes collected and analyzed

2. OPEX today 5 MEUR
   (of which 72% represent electricity costs)

3. Based on Action plans
   CAPEX plus ESCO operating costs
   70% local authorities EPC (25 MEUR)
   30% local authorities D&B (5 MEUR)
NEWLIGHT numbers and figures

4. Reconstruction scope 90%, energy savings potential 71%
   (LED luminaires and regulation)

5. SPP 10 years due to a low electricity price
   Average electricity price is 8 eurocents
   lowest 6 eurocents (without VAT)

6. OPEX tomorrow 2 MEUR
   (3 MEUR savings - 70% in electricity and 50% in maintenance costs)
Recommendations

1. Try to cooperate on regional level
Use regional authorities for bundling process (!)
Availability of skills, technical design capacity, avoid ‘reinventing the wheel’, reach economies of scale

2. Use standardized methods/procedures
Lower (perceived) risks, facilitated financing, lower costs of auditing and uniform data, existing GIS integration

3. Consider all financial models
EPC, PPP, D&B contracts, leasing, debt financing,...
Combined financing – ESIF/EFSI !!!!
Recommendations (2)

4. Introducing new models of contracting in public administration requires time - having reference (pilot) projects can help (PPP, EPC...)

5. Communicate with ESCO market players
EPC or PPP projects need to be communicated as early as possible – inform market players about contract model and tendering process details

6. Financial instruments
Financial instruments play important role in boosting ESCO market when greater number of projects plane to be executed
7. Consider Smart City aspects
Opportunities (!) – sensors, e-charging infrastructure... consider all potential revenue sources

8. Take into account election calendar (!)
Also, city budget process (public procurement)

9. Communication, communication, communication
Cities/municipalities need to be guided/coached throughout the process. Financing is not enough.
Replicability?

Do not be intimidated by possible project size!
Biggest risk lies in dedicated human capacity

**Prepare communication strategy**
Prep yourself for the meeting.
Make short and concise key project ideas

**Expect unexpected.**
Expect misunderstanding and misinterpretation.
Explaining takes time... prepare yourself

**Knock on thousand doors.**
Failures do not take personally. Be persistent.
ELENA facility

Use ELENA for:

a) Financing TA

b) Build in-house capacity for sustaining facilitation services

c) Build your network of external experts and start sustainable cooperation with expert advisors seed activity for future cooperation
Thank you from NEWLIGHT team

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