"GREEN" SUBSIDY
FOR THE FIRST ENERGY SERVICE INITIATIVE

Modernization of lighting system of administrative and technological complex “Transport Tower” in Astana

Brief description of the object:
Administrative and technological complex "Transport Tower" is located at 010000, Astana, Kabanbay Batyr Ave. 32/1, year of commissioning – 2003. The building consists of a technical basement and 34 floors. The total area of the building is 32,294.4 square meters. The number of organizations located in the building - Central Office and 5 departments of the Ministry. The average number of employees in the building - 720 people.

- The concept of transition of the Republic of Kazakhstan to "green economy" dated 30.05.2013;
- 59 - STEP of the Nation Plan. ATTRACTING STRATEGIC INVESTORS INTO ENERGY EFFICIENCY SPHERE THROUGH INTERNATIONALLY RECOGNIZED MECHANISM OF ENERGY-SERVICE CONTRACTS (May 2015);
- Message of the President of the Republic of Kazakhstan N. Nazarbayev to the people of Kazakhstan dated January 10, 2018 “New opportunities of development in the conditions of fourth industrial revolution”;
- Demonstration of experience, opportunities for implementation, attracting investors

Conduct audit of lighting with assistance of UNDP-GEF Project:
- Inventory of lighting devices: 13,278 units 18-400 W;
- Annual energy consumption 1,053,425 kWh;
- Annual purchase of new lamps to replace 1,745 those that failed;
- Potential of energy saving 52%;
- The potential saving on purchase of lamps and maintenance is 1.328.2 thousand Tenge/year;
- Potential energy saving is 8,583.2 thousand Tenge/year;

Main criteria during decision making:
- Attraction of extra-budgetary investments;
- Guarantee of saving;
- Service maintenance

THREE PROJECT IMPLEMENTATION MECHANISMS WERE CONSIDERED

Budget financing

1. Simplicity of introduction.
2. Opportunity to use the real financial assets.
3. Increases one-time budget load;
4. Not effective if not aware of optimal technical solutions and prices for their purchase.
5. Limitation of budget resources.

Energy Service Contract*

1. No load on budget, saving as a source of reimbursement of investment costs.
2. Potential of replication and scaling.
3. Attraction of qualified specialists, selection of the best technologies.
4. Orientation to a specific result – energy savings and service maintenance.
5. Necessity of annual justification of savings for governmental agencies.
7. Maximum contract term not more than 6 years.
8. Unregulated procurement process and relationship of the parties for institutions funded from the budget.

* Energy service contract is more applicable for entities that can manage the savings themselves.

Public-private Partnership

1. No load on budget, saving as a source of reimbursement of investment costs.
2. Potential of replication and scaling.
3. Attraction of qualified specialists, selection of the best technologies.
4. Orientation to a specific result – energy savings and service maintenance.
5. The possibility of concluding a contract for up to 30 years.
7. Guarantee of investment return for business according to the Budget Code of the R.K.
8. Time-taking process of writing project documentation.
9. Long agreement procedures.
10. Loss of project relevance due to lengthy agreement.
11. When structuring a project without budget load, the project requires agreement according to budget procedures.
**Business provided investment offer of PPP project. Solution of issues during critical design review**

**Signing PPP contract**

- Second tier bank
  - Loan for production and installation of lamps
  - 1. Survey - Guarantee, 50% of the loan amount for a loan;
  - 2. Bank rate subsidy, 10%
- DAMU - UNDP-GEF Project
- Private partner - "LED system media" LLP
- PPP object - lighting system of Transport Tower
- PPP contract: Access to object;
- Work acceptance - Payments under the contract
- Public partner - The Ministry of investments and development of the RK
- Working commission on defining savings

**Benefits for the state / budget from project implementation**

<table>
<thead>
<tr>
<th>№</th>
<th>Name</th>
<th>Benefit of public partner - budget</th>
<th>thousand tenge</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.0</strong></td>
<td>Benefit for the state from implementation of PPP Project</td>
<td>35 650,0</td>
<td>12 666,6</td>
</tr>
<tr>
<td>1.1</td>
<td>including savings on utility bills for lighting</td>
<td>5 002,2</td>
<td>10 704,6</td>
</tr>
<tr>
<td>1.2</td>
<td>including investment flow (materials and equipment - new LED lighting system)</td>
<td>29 905,7</td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td>including taxes and other obligatory payments to the budget from business activities</td>
<td>742,1</td>
<td>1 962,0</td>
</tr>
<tr>
<td><strong>2.0</strong></td>
<td>State obligations on payments to business under PPP contract</td>
<td>- 17 020,5</td>
<td>- 16 152,9</td>
</tr>
<tr>
<td>2.1</td>
<td>including compensation of investment costs</td>
<td>15 950,0</td>
<td>12 460,7</td>
</tr>
<tr>
<td>2.2</td>
<td>including remuneration for managing PPP object (service up to 47.5% of savings)</td>
<td>1 070,5</td>
<td>3 692,2</td>
</tr>
</tbody>
</table>

**Net benefit of the state from PPP Project implementation:**

- 18 629,5 - 3 486,2 + 5 813,7 - 7 949,5 + 8 516,3 + 9 122,8 + 2 504,6 + 49 050,2

**Business benefits from the project**

<table>
<thead>
<tr>
<th>№</th>
<th>Name</th>
<th>Benefit of private partnership</th>
<th>thousand tenge</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>Remuneration for managing PPP object</td>
<td>1 070,5</td>
<td>3 692,2</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>Payment of id of bank loan rate</td>
<td>587,5</td>
<td>626,6</td>
</tr>
<tr>
<td><strong>3</strong></td>
<td>Staff for service maintenance</td>
<td>919,3</td>
<td>1 068,8</td>
</tr>
<tr>
<td><strong>4</strong></td>
<td>Payment of taxes and other payments to the budget</td>
<td>742,1</td>
<td>1 962,0</td>
</tr>
<tr>
<td><strong>Benefit of private partner</strong></td>
<td>- 1 178,4</td>
<td>34,7</td>
<td>2 974,9</td>
</tr>
</tbody>
</table>

**Business Rate Banking Subsidy (10%)**

<table>
<thead>
<tr>
<th>№</th>
<th>Name</th>
<th>1-year</th>
<th>2-year</th>
<th>3-year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The amount of bank interest on the loan</strong></td>
<td>1 839,0</td>
<td>2 019,2</td>
<td>327,1</td>
<td></td>
</tr>
<tr>
<td><strong>Subsidy on the mechanism &quot;DAMU-UNDP-GEF&quot;</strong></td>
<td>1 305,5</td>
<td>1 392,5</td>
<td>225,6</td>
<td></td>
</tr>
<tr>
<td><strong>Obligations of the business to the bank to pay interest on the loan</strong></td>
<td>587,5</td>
<td>626,6</td>
<td>101,5</td>
<td></td>
</tr>
</tbody>
</table>

**SUMMARY:**

1. The project implementation saves energy - 508 180 kWh/year, which is equivalent to a reduction of 593 tons of CO₂ per year;
2. The possibility of redistributing the released energy to other urban infrastructure;
3. The budget attracted extrabudgetary investments to modernization provided by future energy savings without load on budget;
4. Businesses gained access to the object and opportunity to diversify sale of LED lamps through service

**UNDP-GEF and DAMU Fund provided a guarantee of up to 50% of the loan amount so that the business could get a loan for the implementation of the project in RB**