



REPUBLIKA SLOVENIJA
MINISTRSTVO ZA INFRASTRUKTURO



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The state of the art and the results of deep energy renovation of public buildings in Slovenia

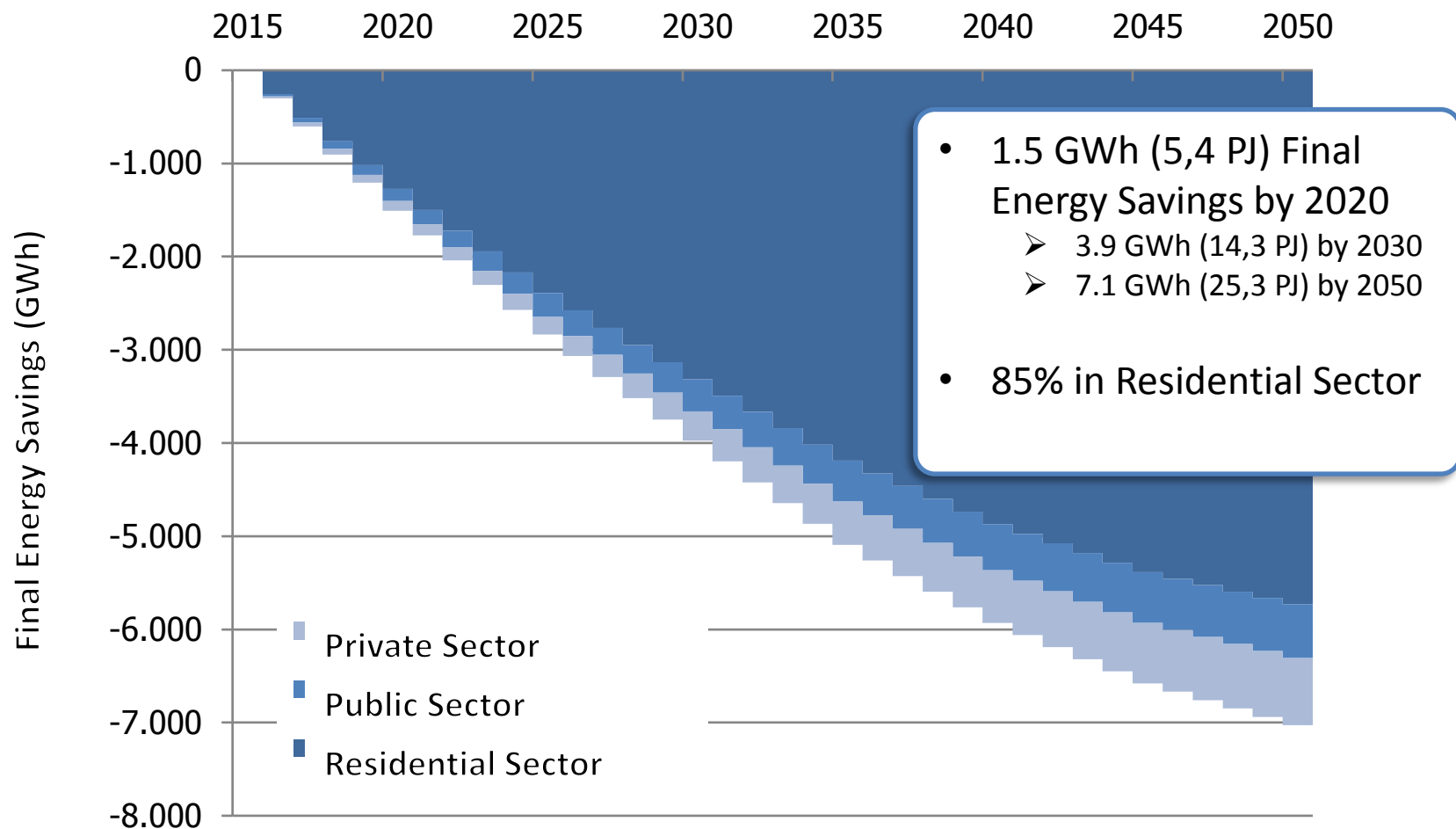
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CAEED study visit Slovenia, 8.-9.11.2018



Savings Estimates



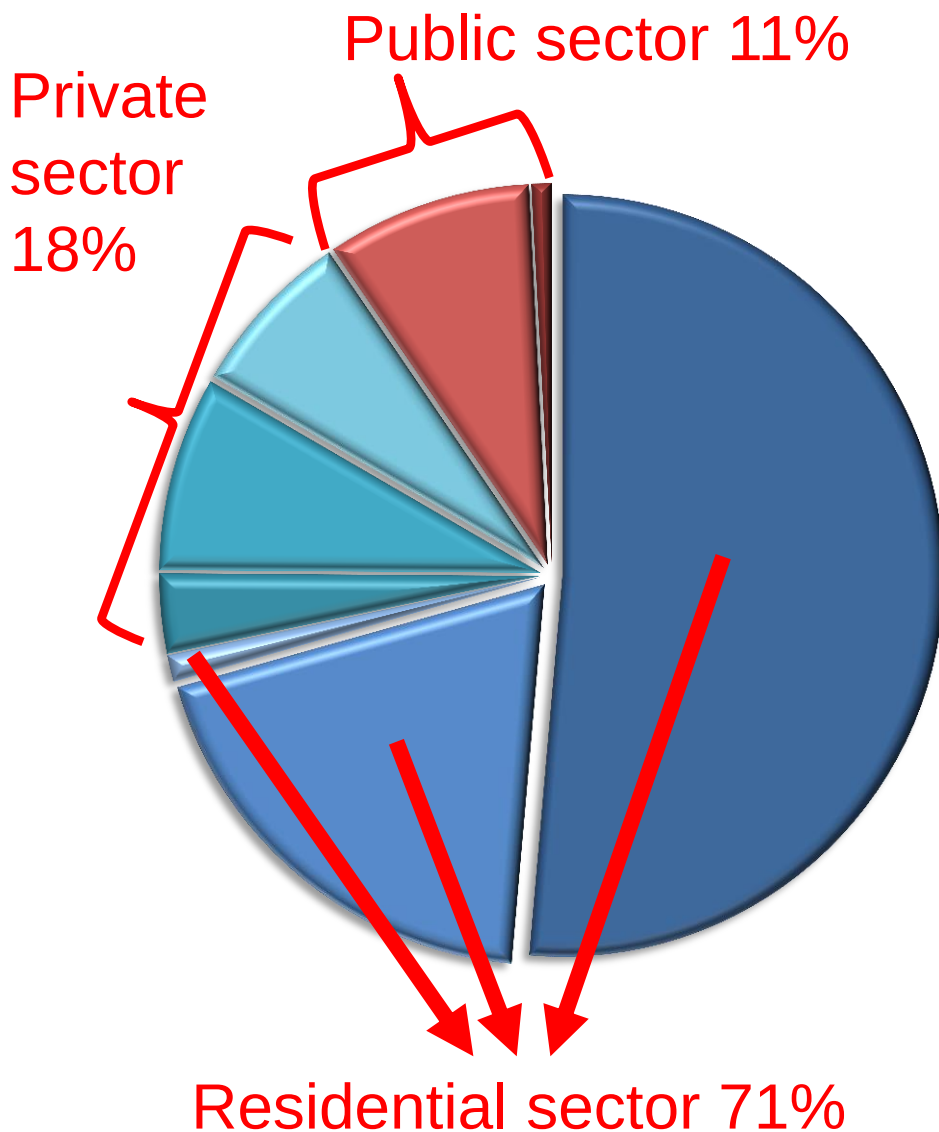


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Building Stock



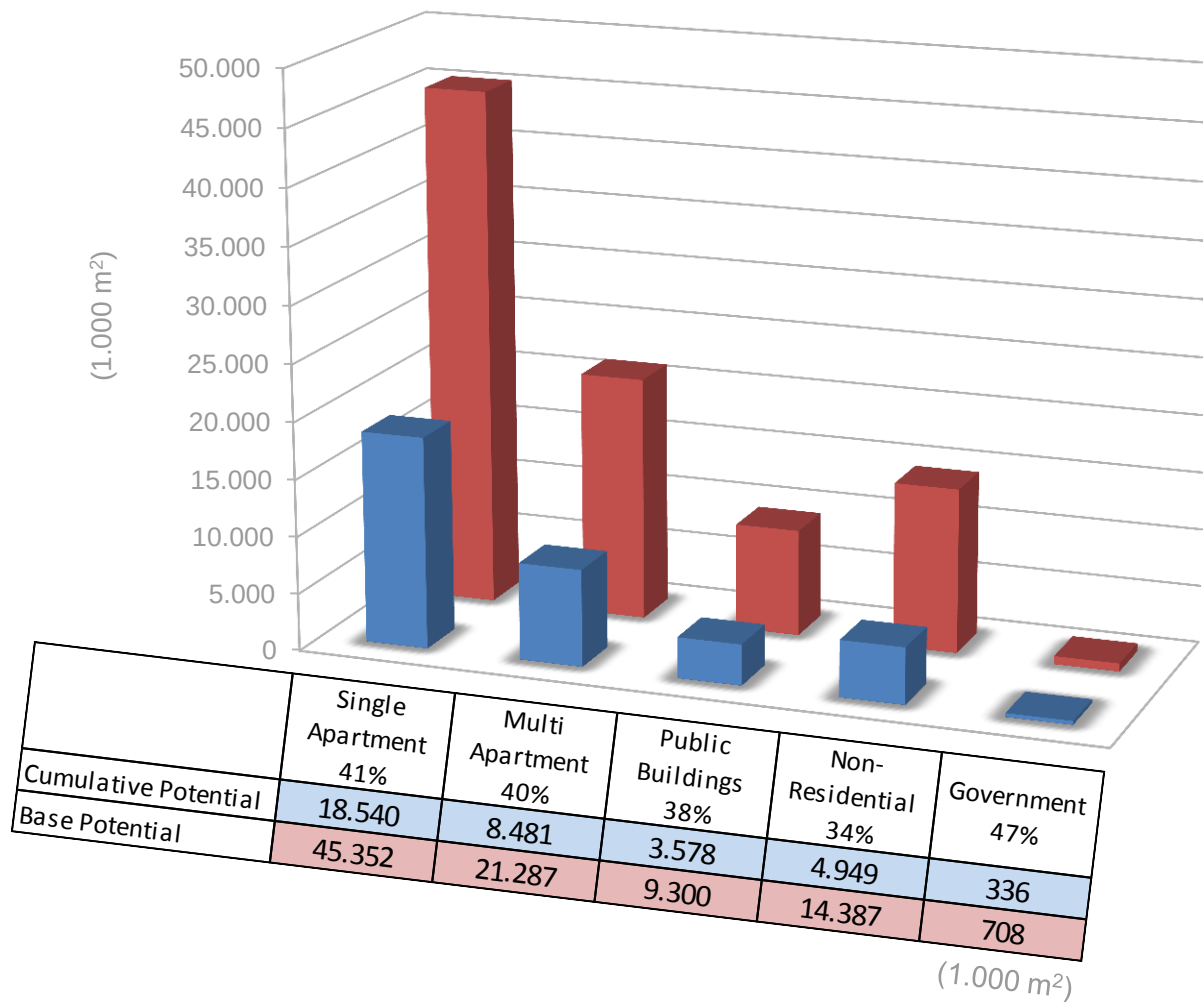
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BUILDING TYPE	SURFACE (000 m ²)	SURFACE (%)
Single apartment	46.146	71%
Multi apartment	17.291	
Special purpose apartments	1.008	
Catering	3.008	18%
Business & Administration	7.409	
Commercial & other services	6.415	
General Public use	7.817	11%
Government	708	
TOTAL	89.802	



Renovation Potential





Key assumptions

- **Long-Term Strategy for Mobilising Investments in the Energy Renovation of Buildings:**
 - The average value of investments: 208 €/m² (VAT excluded)
 - The estimated volume of investment: 415 million € (VAT included)
 - Co-funding: up to 40 % of investment's eligible costs
 - Test of suitability for PPP
- **Financial Construction:**
 - Grants (OP ECP 2014-2020): 148 million €
 - Refundable Cohesion Funds (OP ECP 2014-2020): 25 million €
 - Private funds (ESCO)
 - Public partners' funds



Analysis of Pilot projects

Updated: 12.9.2018

Pilot project	Characteristics	$A_{\text{net_floor}}$ (m ²)	Investment (VAT excl.) (mio EUR)	Grant (mio EUR)	Total final energy savings (kWh/a)
CŠOD Bohinj	ZNEB	2.105	1,2	0,3	247.300
3 sodišča – Celje, Slovenj Gradec, Murska Sobota	Bundled buildings	14.077	2,0	0,7	623.840
Upravna stavba Šmarje pri Jelšah	Multiple managers per one building	3.618	0,8	0,3	493.030
5 stavb kulturne dediščine	Cultural heritage building	55.477	4,1	1,6	3.543.580

All project are PPP!



Analysis of OJS

Updated: 12.9.2018

Call		<i>OJS 2016 - PP</i>	<i>OJS 2017 - PPP</i>
No of operations		2	1
Investment (VAT excl.)	(mio EUR)	2,62	6,52
Grant	(mio EUR)	1,03	2,61
Net floor area	(m2)	14.200	35.200
Total increase in the use of energy from RES	(kWh/a)	26.000	699.700
Total final energy savings	(kWh/a)	1.360.100	3.327.500
Eligible costs	(mio EUR)	2,58	6,52

OJS - Central Government

RES - Renewable Energy Source

PP - Public Procurement

PPP - Public-Private Partnership

Note: The operation is considered to be a PPP if at least 50% of the value of the operation (VAT excluded) is a PPP.



Analysis of ŠJS

Updated: 12.9.2018

Call		ŠJS 2016 - PP	ŠJS 2016 - PPP	Share of PPP (%)	ŠJS 2017 - PP	ŠJS 2017 - PPP	Share of PPP (%)	ŠJS 2018 - PP
No of operations		7	2	22	2	4	67	1
Investment (VAT excl.)	(mio EUR)	13,10	3,98	23	2,34	6,80	74	1,60
Grant	(mio EUR)	2,64	1,52	37	0,68	2,70	80	0,57
Net floor area	(m2)	34.200	42.000	55	8.000	46.500	85	6.600
Total increase in the use of energy from RES	(kWh/a)	301.251	2.243.600	88	312.800	1.625.900	84	0
Total final energy savings	(kWh/a)	2.427.652	2.235.700	48	1.078.600	3.446.900	76	357.800
Eligible costs	(EUR)	6,61	3,80	37	1,80	6,73	79	1,40

ŠJS - Wider Government Sector

RES - Renewable Energy Source

PP - Public Procurement

PPP - Public-Private Partnership

Note: The operation is considered to be a PPP if at least 50% of the value of the operation (VAT excluded) is a PPP.



Analysis of JOB

Updated: 12.9.2018

Public Tender		<i>JOB 2016 - PP</i>	<i>JOB 2016 - PPP</i>	<i>Share of PPP (%)</i>	<i>JOB 2017 - PP</i>	<i>JOB 2017 - PPP</i>	<i>Share of PPP (%)</i>	<i>JOB 2018 - PP</i>	<i>JOB 2018 - PPP</i>	<i>Share of PPP (%)</i>
No of operations		15	4	21	9	4	31	5	9	64
Investment (VAT excl.)	(mio EUR)	15,19	7,55	33	10,01	13,76	58	5,69	25,01	81
Grant	(mio EUR)	4,71	2,90	38	2,31	5,49	70	1,30	9,55	88
Net floor area	(m2)	70.600	40.000	36	22.900	83.500	78	13.200	140.500	91
Total increase in the use of energy from RES	(kWh/a)	1.620.900	1.279.500	44	278.300	1.285.200	82	260.100	2.783.400	91
Total final energy savings	(kWh/a)	4.163.500	3.183.700	43	1.559.600	7.422.900	83	1.129.100	9.562.800	89
Eligible costs	(EUR)	11,88	7,26	38	5,77	13,72	70	3,25	23,88	88

JOB – Public tender for Municipalities
RES - Renewable Energy Source

PP - Public Procurement
PPP - Public-Private Partnership

Note: The operation is considered to be a PPP if at least 50% of the value of the operation (VAT excluded) is a PPP.



Joint Analysis of Calls and Public Tenders

- Total No. of operations: 65 (28 PPP, 37 PP)
- Total net floor area of buildings: $\approx 607.000 \text{ m}^2$ (76% PPP, 24% PP)
- Total value of eligible costs: ≈ 100 million € (69% PPP, 31% PP)
- Avg. energy saving $Q_f / A_{\text{net floor area}}: \approx 75 \text{ kWh/m}^2\text{a}$
- Avg. increase in ener. product. from RES $/ A_{\text{net floor area}}: \approx 20 \text{ kWh/m}^2\text{a}$

Public Tender data (Municipalities only)	PPP	PP
En. savings $Q_f / A_{\text{net floor area}}$ (kWh/m ² a)	86	68
Eligible costs $/ A_{\text{net floor area}}$ (€/m ²)	170	225



Future prospects



- Bankable projects – today: with the support of EU cohesion funds (up to 40% od eligible costs)

- Bankable projects – near future:
 - no support from EU cohesion (grants),
 - additional challenge – coastal regions with moderate savings potential,



YET...

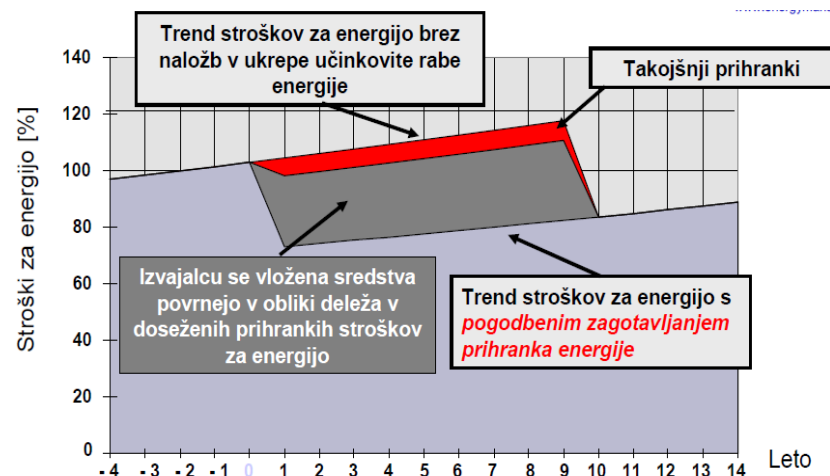




€ ESCO market



- 4 different ESCO companies have been selected in the tenders, and at least 3 other companies are on the market
- Slovenian ESCO market **analysis**
- Introduction of a **system for monitoring the quality of service delivery and certification of ESCO companies**
- Financial instruments





Financial instruments

- **Key Elements of Financial Instruments for the 2014-2020 programming period:**
- **reimbursable** EU cohesion policy funds,
- **fund of funds** and/ or the financial intermediary,
- SID Bank,
- **25 million €** of reimbursable funds,
- **leverage 1,5**,
- **total of 36 million €**,
- **starting date: Autumn 2018.**





€ Technical assistance ELENA

- **1.7 million €** worth **grant** for technical assistance,
- a grant of up to **90% of the eligible costs** for the preparation of the following documentation:
 - Energy audits,
 - Investment documentation,
 - Test of suitability for Public-Private-Partnership,
 - Project documentation;
- available over **2018-2020** period,
- condition **leverage of at least 20** times the value of the approved technical assistance.





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Thank you for your attention!

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