

# Achieving regional carbon neutrality by 2050


*EUROPEAN PERSPECTIVE AND A  
FOCUS ON NORTH CROATIA*

- The development of human civilization is strongly linked to the availability of energy
- No energy transition in history has taken place quickly but has lasted for decades
- Shifts in energy are not comparable to shifts in the computer industry
- Energy is needed for everything we do, consume or produce. If we want to contribute to reducing the impact on the climate, we must first understand that we need to reduce energy consumption



For drastic change, we  
need innovative solutions

- Political debate on EU and national levels
  - Multilevel governance involving Croatian local and regional bodies as well
  - 3 of 5 Croatian energy agencies in northern part of Croatia
- Local and regional authorities play a leading role in climate change mitigation and adaptation
- Energy and climate planning in Croatia
  - SEAPs and SECAPs
  - Energy efficiency action plan (three year planning)
  - Energy efficiency annual plan (one year planning)



Regional Energy Agencies as  
key support organizations





## Public authorities

- Different political agenda
- Main barriers in setting more ambitious targets in site of 2050
  - Financial, regulatory, political, technical, social, lack of infrastructure and interconnections
- Overcrowded with their daily activities
  - Lack of capacity
- Support for facilitation of climate and energy planning and implementation



## Energy agencies



- Support through the whole process

C-Track 50 project boost cooperation

- Data collection
  - Energy consumption
  - Climate data
- Information system for energy management
- Adaptation and mitigation measures development
- Innovative financial sources and tools
  - Crowdfunding
  - Revolving funds
  - EPC

Početna    Upravljanje korisnicima    Upravljanje objektima    Izveštaji i grafovi    GeoAdministracija    EnergoAdministracija

jurica.perko    O programu    DEBRG    Odjava

Početna stranica    Početna    Poruke    Nova poruka    Moji alarmi    Alarmi

**Početna stanica**

Statistika    Statistika mojih objekata    Svi moji objekti

## Ukupni statistički podaci ISGE baze podataka (03.02.2020.)

Vrsta ETC-a:	Broj objekata	Broj mjernih mjesta	Broj automatskih mjernih mjesta	Broj računa	Broj očitavanja	Broj automatskih očitavanja
Kompleks	1.035	3.365	427	427.278	12.636.741	12.229.950
Zgrada u kompleksu	4.008	3.476	413	418.957	9.553.860	9.172.356
Slobodnostojeća zgrada	10.304	25.222	711	3.311.745	15.149.195	13.437.626
Dio zgrade	3.639	6.795	51	759.227	1.313.087	1.132.120
<b>Suma - Zgradarstvo</b>	<b>18.986 (14.312)</b>	<b>38.858</b>	<b>1.602</b>	<b>4.917.207</b>	<b>38.652.883</b>	<b>35.972.052</b>
Javna rasvjeta	22.031	21.197	3	2.872.081	1.172	0
<b>Suma</b>	<b>41.017</b>	<b>60.055</b>	<b>1.605</b>	<b>7.789.288</b>	<b>38.654.055</b>	<b>35.972.052</b>

## Aktivni ISGE korisnici

Gost	6
Korisnik	1.350
Energetski menadžer	14
Energetski administrator	199
Administrator sustava	11
<b>Ukupno</b>	<b>1.580</b>



Information System for Energy Management – national tool that facilitates and accelerates decision making process

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**Objekti**    Školska poliklinika Dubrovnik [HR-20000-0182-1] - Ul. uz Tabor 2, Dubrovnik

Svi zapisi    Jedan zapis    Korisnici    Google karte    Mjerna mjesta    Računi    Grafovi računa    Očitanja    Grafovi očitanja    Senzori    Indikatori    Cijevi    Izvještaji

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Naziv energenta	Godina / Zaglavje	Mjesec / Zaglavje	Serijski broj računa / Zaglia	Naziv dobavljača / Opć podaci	Naziv grupe računa	Izračunata količina	Izračunata cijena	Vrsta objekta
<input type="checkbox"/> Električna energija	2019	12	0010000746-191220-4	HEP - Opskrba d.o.o.	HEP Opskrba PRO - 711		608,11	Dom zdravlja
<input type="checkbox"/> Električna energija	2019	12	0010000746-191220-4	HEP - Opskrba d.o.o.	Mrežarina distribucije 2017	983,00	573,38	Dom zdravlja
<input type="checkbox"/> Električna energija	2019	12	0010000746-191220-4	HEP - Opskrba d.o.o.	Mrežarina prijenosa 2017	0,00	277,70	Dom zdravlja
<input type="checkbox"/> Voda	2019	11	2-1023531-11911196	Vodovod Dubrovnik d.o.o.	Voda i odvodnja / Vodovod Dubrovnik	1,00	32,86	Dom zdravlja
<input type="checkbox"/> Električna energija	2019	11	0010000746-191120-8	HEP - Opskrba d.o.o.	Mrežarina distribucije 2017	609,00	301,92	Dom zdravlja
<input type="checkbox"/> Električna energija	2019	11	0010000746-191120-8	HEP - Opskrba d.o.o.	Mrežarina prijenosa 2017	0,00	129,13	Dom zdravlja
<input type="checkbox"/> Električna energija	2019	11	0010000746-191120-8	HEP - Opskrba d.o.o.	HEP Opskrba PRO - 711		371,24	Dom zdravlja
<input type="checkbox"/> Voda	2019	10	2-1023531-11910190	Vodovod Dubrovnik d.o.o.	Voda i odvodnja / Vodovod Dubrovnik	1,00	32,86	Dom zdravlja
<input type="checkbox"/> Električna energija	2019	10	0010000746-191020-1	HEP - Opskrba d.o.o.	Mrežarina distribucije 2017	400,00	203,25	Dom zdravlja
<input type="checkbox"/> Električna energija	2019	10	0010000746-191020-1	HEP - Opskrba d.o.o.	Mrežarina prijenosa 2017	0,00	74,85	Dom zdravlja
<input type="checkbox"/> Električna energija	2019	10	0010000746-191020-1	HEP - Opskrba d.o.o.	HEP Opskrba PRO - 711		233,36	Dom zdravlja
<input type="checkbox"/> Voda	2019	9	2-1023531-11909191	Vodovod Dubrovnik d.o.o.	Voda i odvodnja / Vodovod Dubrovnik	0,00	17,70	Dom zdravlja
<input type="checkbox"/> Električna energija	2019	9	0010000746-190920-3	HEP - Opskrba d.o.o.	Mrežarina distribucije 2017	580,00	302,14	Dom zdravlja
<input type="checkbox"/> Električna energija	2019	9	0010000746-190920-3	HEP - Opskrba d.o.o.	Mrežarina prijenosa 2017	0,00	126,69	Dom zdravlja
<input type="checkbox"/> Električna energija	2019	9	0010000746-190920-3	HEP - Opskrba d.o.o.	HEP Opskrba PRO - 711		344,48	Dom zdravlja
<input type="checkbox"/> Voda	2019	8	2-1023531-11908195	Vodovod Dubrovnik d.o.o.	Voda i odvodnja / Vodovod Dubrovnik	0,00	17,70	Dom zdravlja
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<input type="checkbox"/> Električna energija	2019	8	0010000746-190820-7	HEP - Opskrba d.o.o.	Mrežarina prijenosa 2017	0,00	155,39	Dom zdravlja
<input type="checkbox"/> Električna energija	2019	8	0010000746-190820-7	HEP - Opskrba d.o.o.	HEP Opskrba PRO - 711		531,14	Dom zdravlja
<input type="checkbox"/> Voda	2019	7	2-1023531-11907199	Vodovod Dubrovnik d.o.o.	Voda i odvodnja / Vodovod Dubrovnik	0,00	17,70	Dom zdravlja
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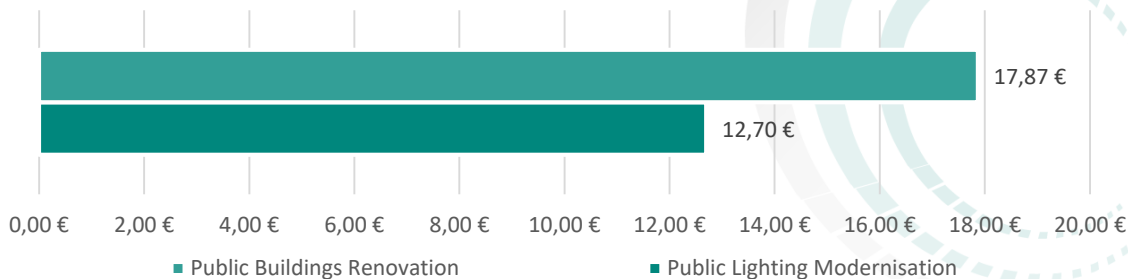
Manually and automatic energy and water bills evidence – cooperation with energy and water suppliers and distributors



Smart metering and monitoring – more detailed user profiles and behavior monitoring at the point



- 10 cities and municipalities
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- Covenant of Mayors objectives applied to City of Krizevci:
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**90.218.000 kWh**



**1,3  
PV systems/  
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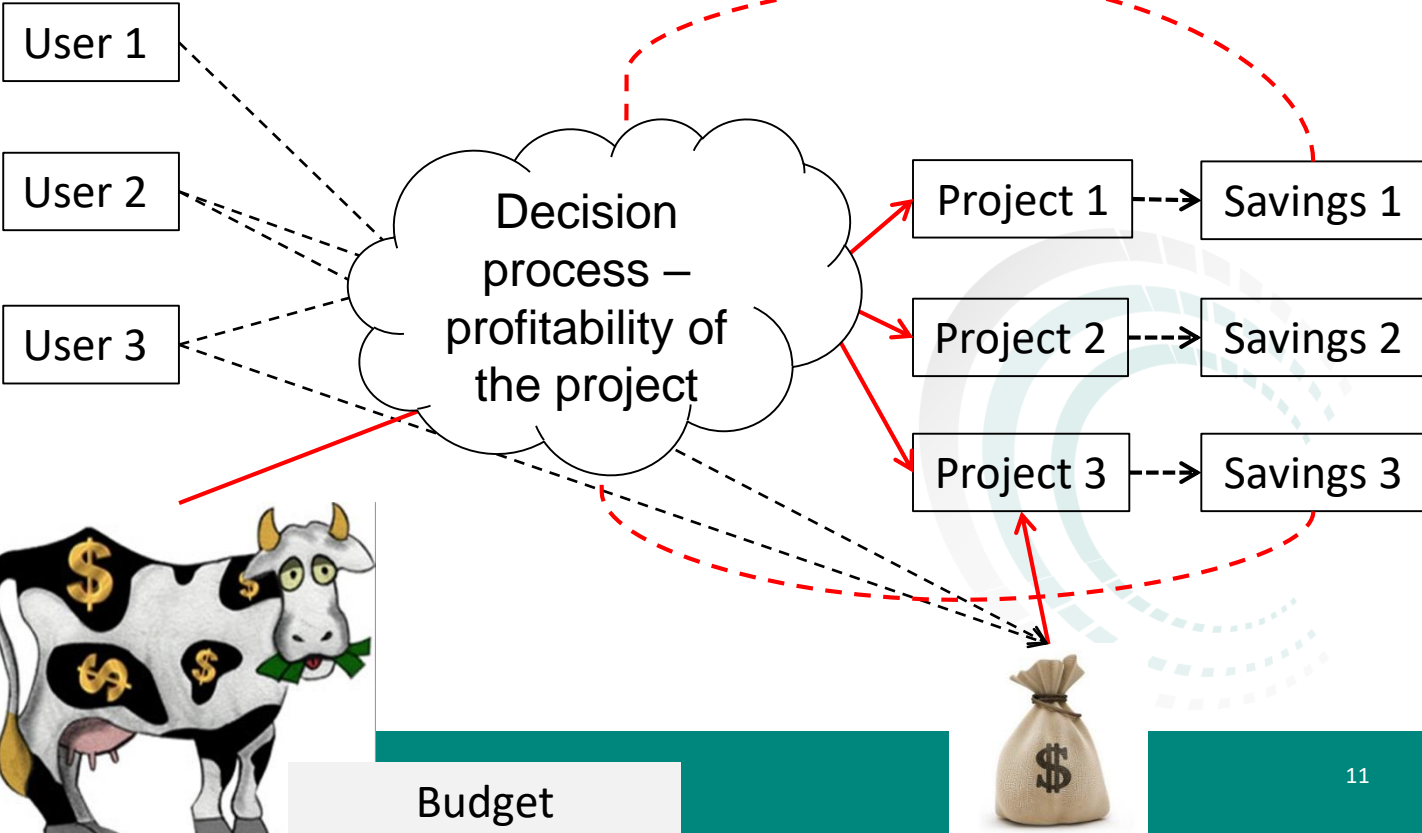
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**Thank you!**

***Jurica Perko***

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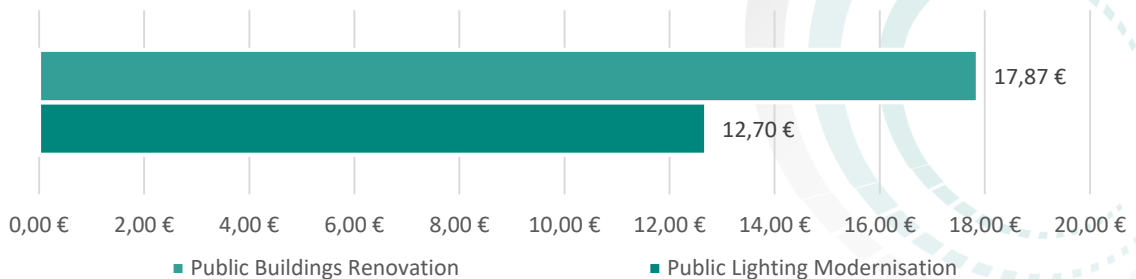


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**1,3  
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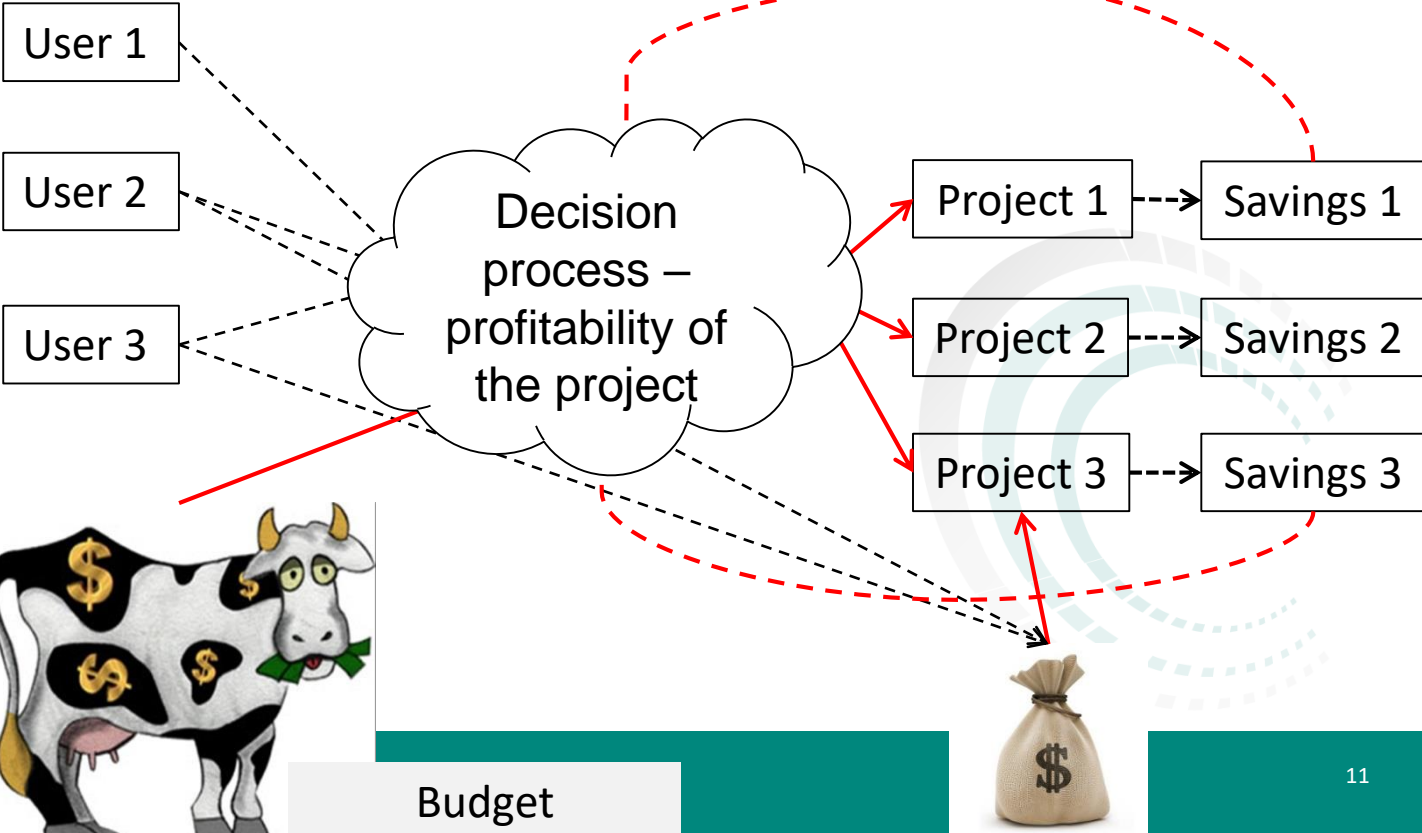
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