

Enercoop Hauts de France

100 % renewable
& cooperative
Electricity Provider



SOLARISE – 2018 october 18th

Pierre Gouëlo - Production & Purchase





Le projet Enercoop

Created in 2005 by :



GREENPEACE

Activity : 100% Renewable electricity provider

Vision : to allow citizen to act concretely



Enercoop project

The objectives :

To Promote renewable energies

To Decentralise the production

To reduce consumption

To allow citizen to re-appropriate the production



Status : SCIC



Cooperative Society of Collective Interest :

Transparency and democracy :
One people = one voice

6 colleges : producers, consumers, salaries, project promoters, municipalities, partners

57 % of the benefits are reinvested



National figures

2018:

64 000

Clients

32 000

Societaries 19 M€ Capital

5000

professionnals

100

cities

150

salaries

335 GWh

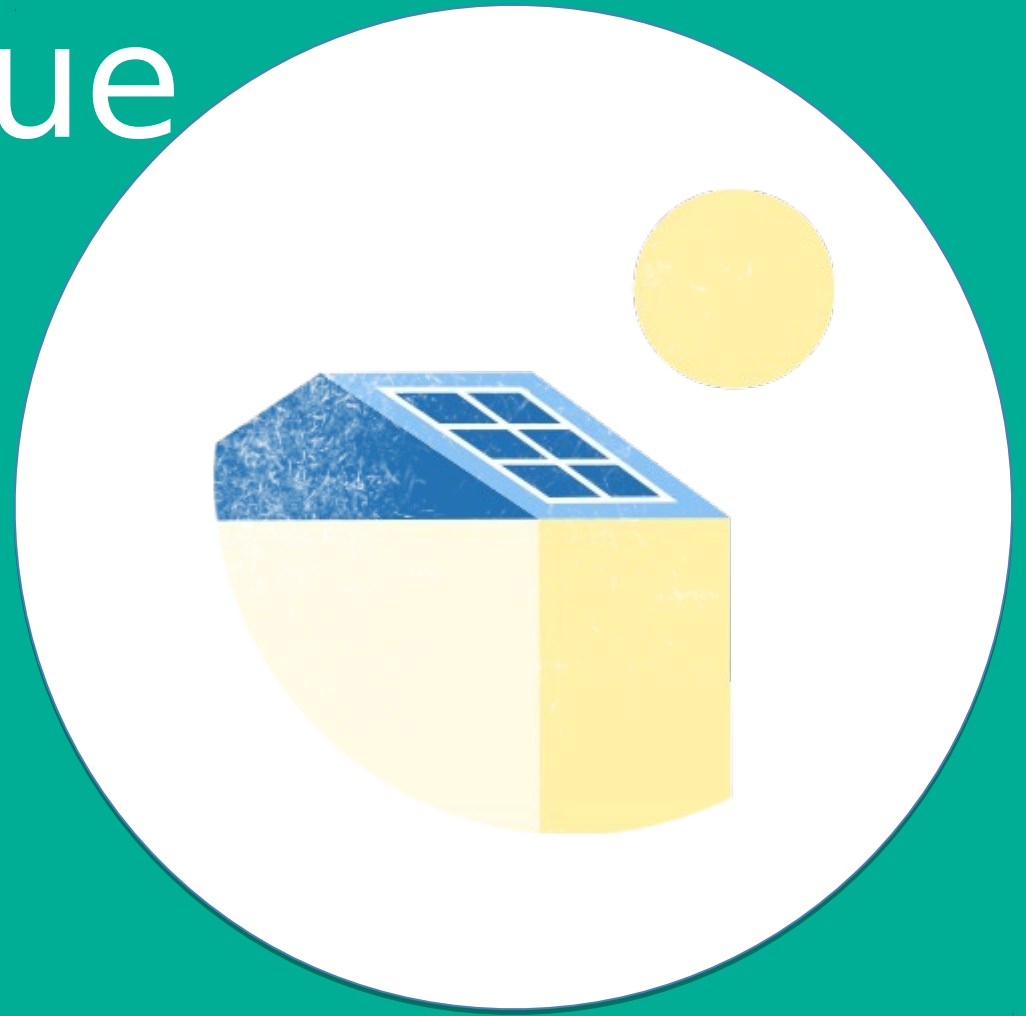
(90 % hydro)

170

producers

Photovoltaïque

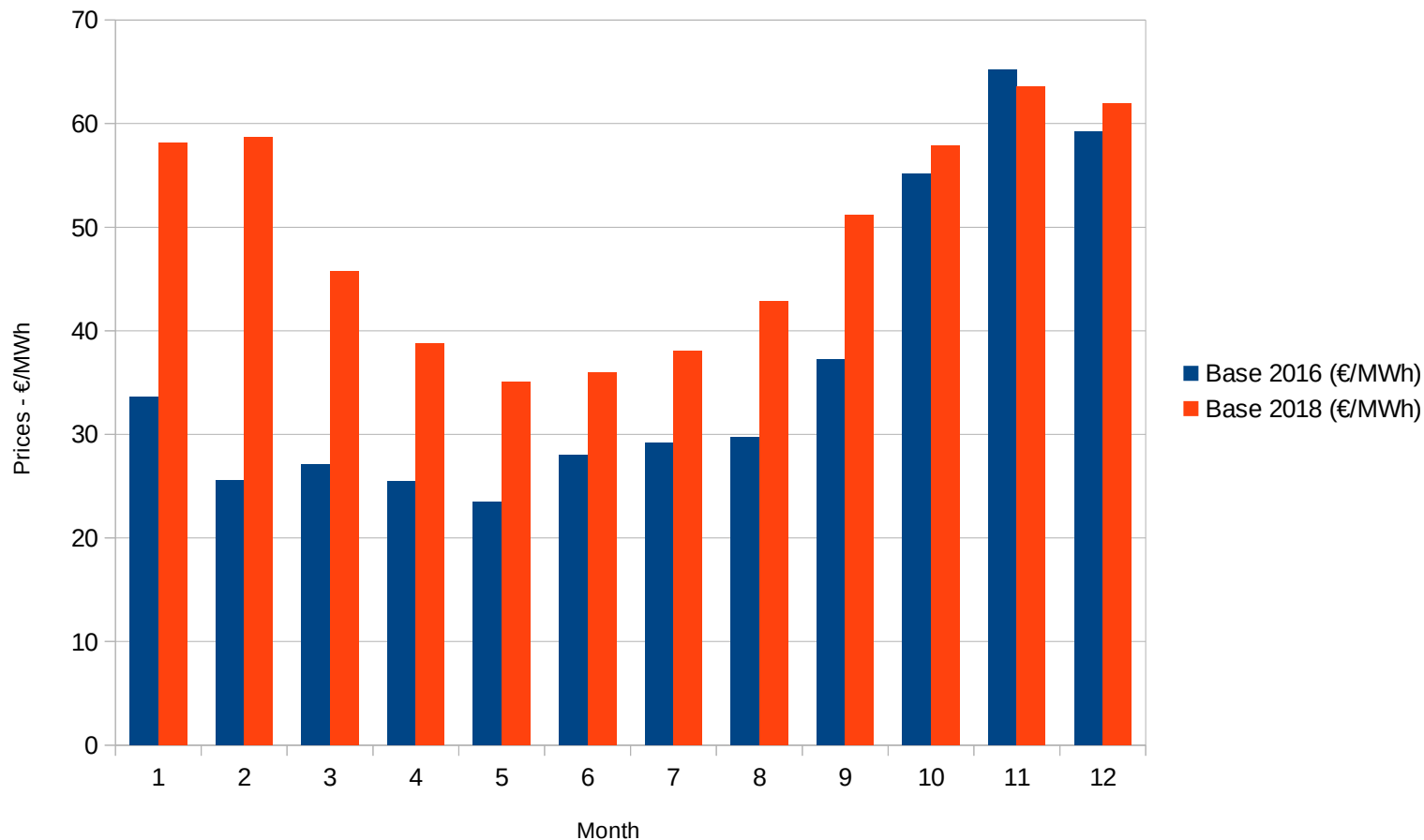
Case Study : Sérifontaine





Electricity French Market – EPEX SPOT

Electricity Prices for 2016 & 2018



Min : 35€/MWh
in Mai 2018
23,5€/MWh
in Mai 2016

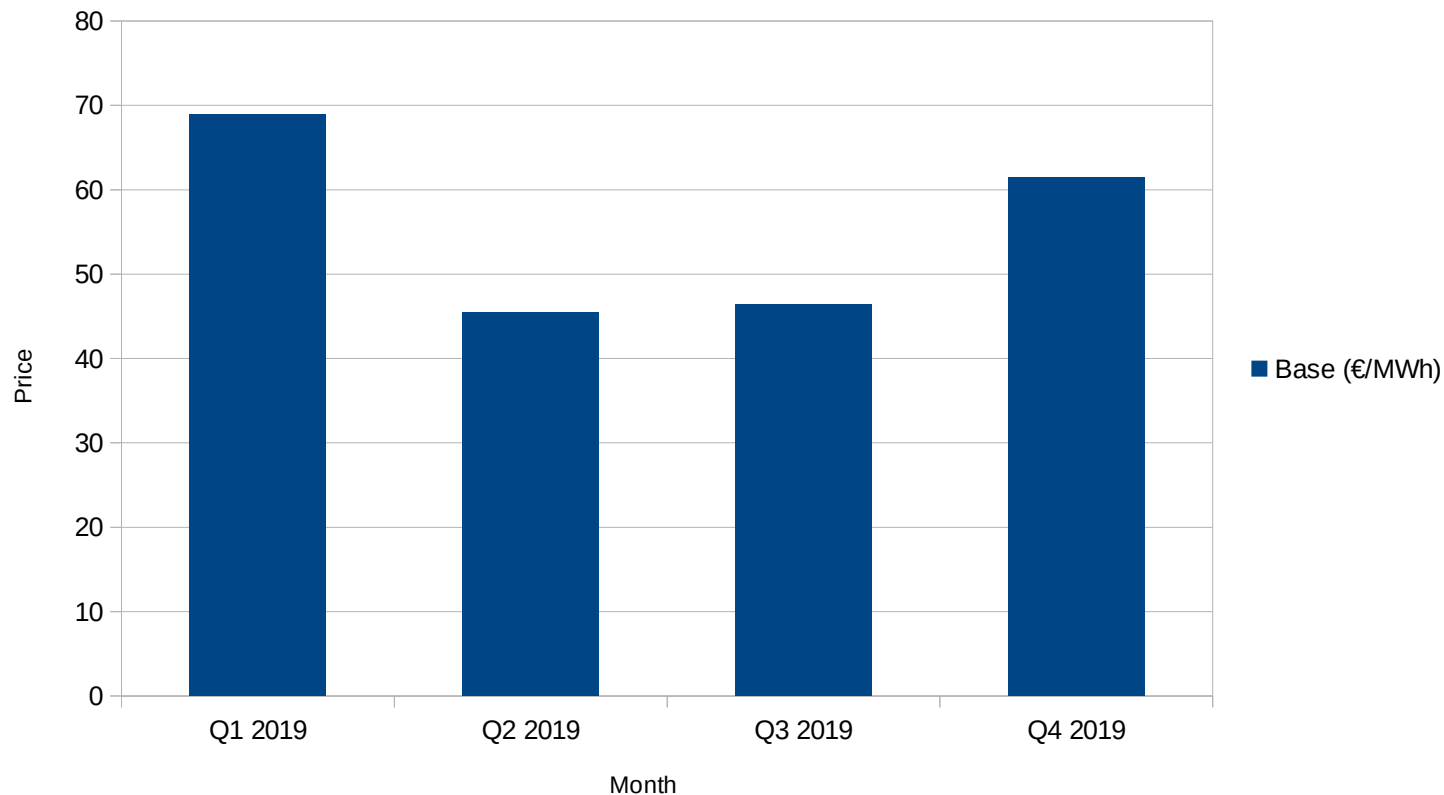
Max : 63€/MWh
in November 2018
65€/MWh
In November 2016

Settled price the 30th
Of August. It will vary.



Electricity French Market – EPEX SPOT

2019



Min : 45 in Summer

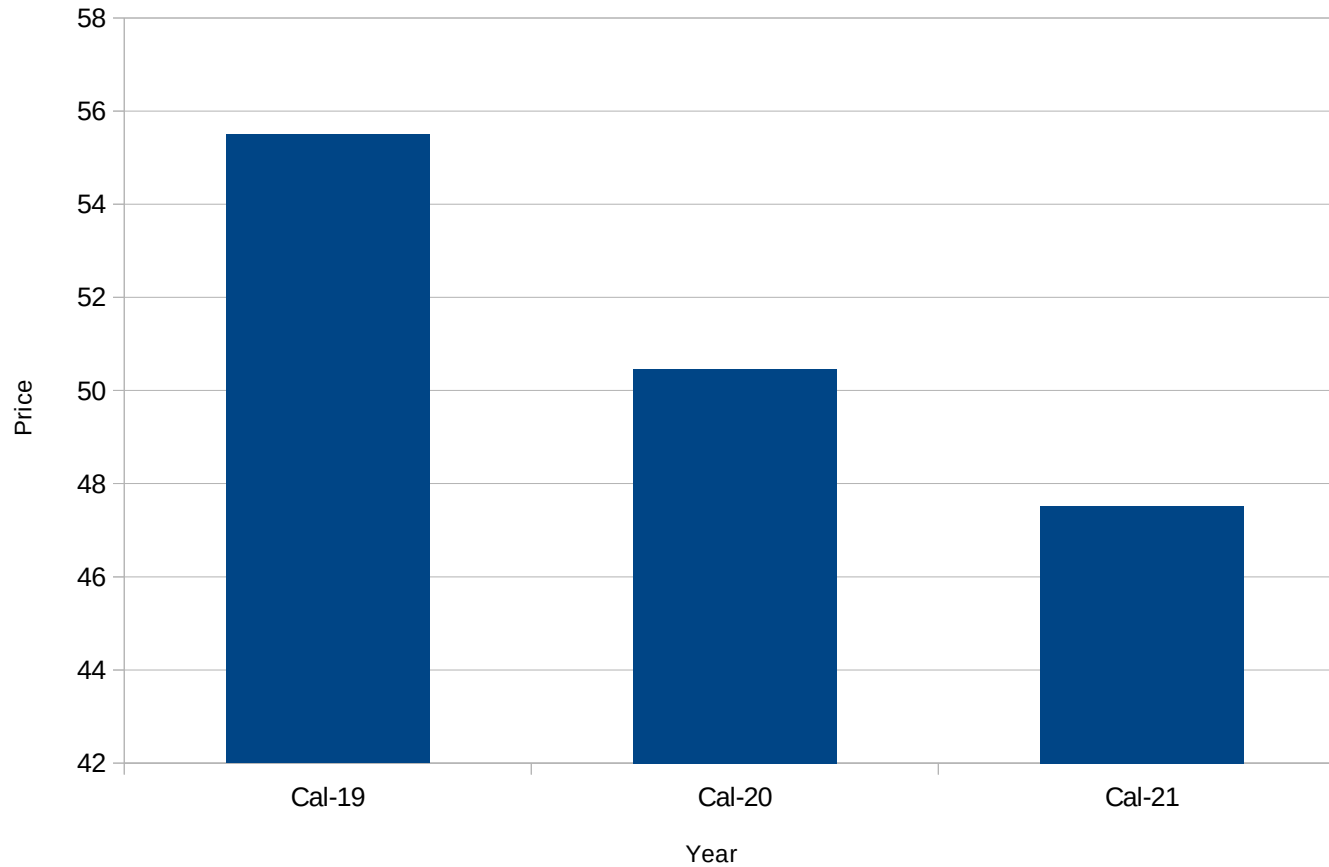
Max : 69 in Winter

Settled price the 30th Of August. It will vary.



Electricity French Market – EPEX SPOT

2019 - 2021



■ Base (€/MWh)

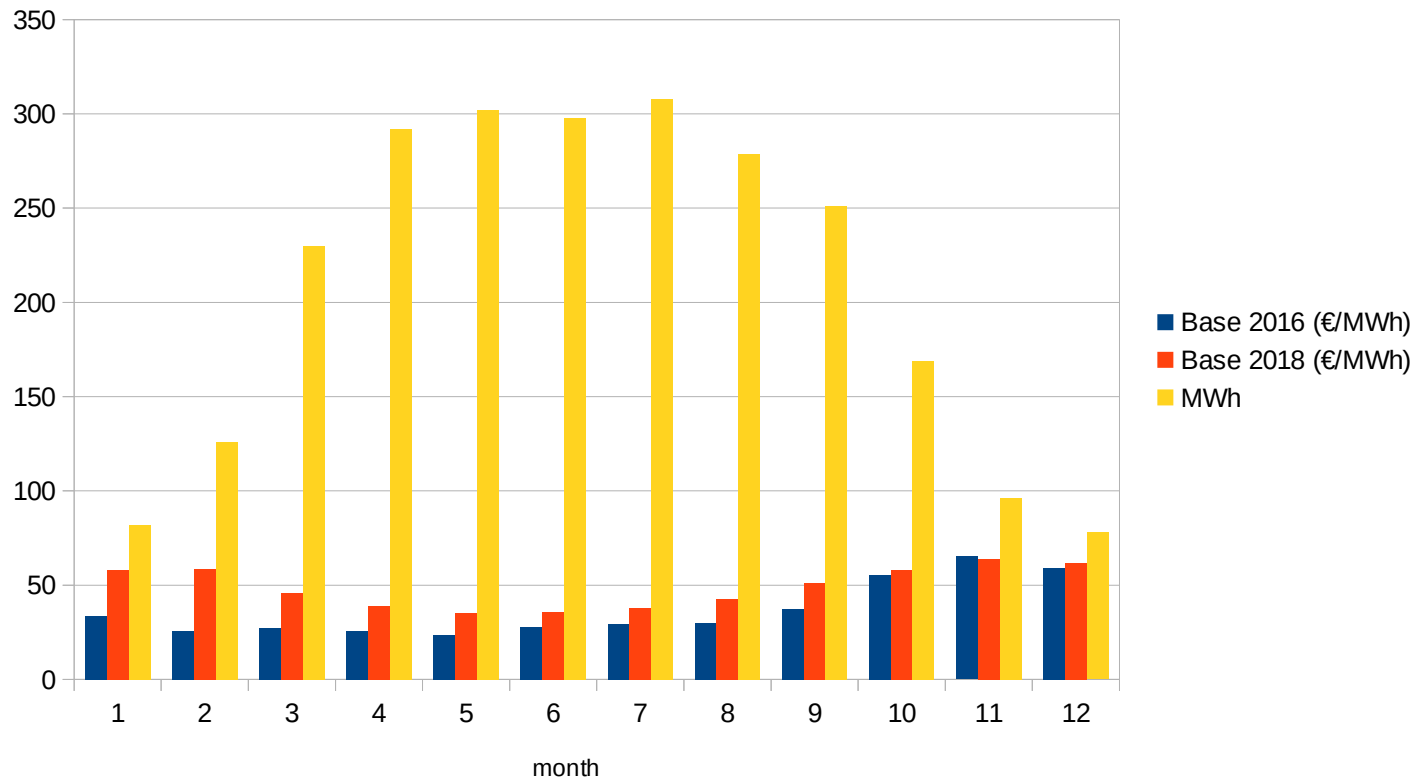
Settled price the 30th Of August. It will vary.

No settled prices above 2021



Production of a 2.5 MWp PV plant based in Sérifontaine (Hauts de France)

Production & prices



Incomes :

112 k€ in
2018

82 K€ in
2016



Development costs for a 2.5 MWp plant 1/2

Total Development Costs	125 k€
Feasability Study	4 k€
Citizen Mobilisation	4 k€
Business Model	10 k€

Connection first study (ENEDIS)

Request for proposal

Commitment to lease



Development costs for a 2.5MWp plant 2/2

Development

80k€

Company incorporation

Environment diagnostic & impacts study

Construction permit (architect)

Public consultation

Lease Agreement

Project Ownership

21 k€

Installer consultation

Connection contract

Insurance & mortgage

Commissioning



Investment Costs

TOTAL	INVESTMENT	2500 k€
Development		125 k€
Modules		1 000 k€
Inverters		225 k€
Structures & Installation		625 k€
Logistics		175 k€
Grid connection		350 k€



Operating costs

Maintenance	23 k€
Insurance	5 k€
Rent	10 k€
Grid access	7 k€
Taxes	20 k€
Accounting	5 k€
Financial costs	40 k€
TOTAL	110 k€



Production costs

20 years amortization :	92€/Mwh
=> Incomes for 20years :	231 k€/year
30 years amortization :	82€/Mwh
=> Incomes for 30years :	206k€/year
Market projection for 2016 :	82k€
Market projection for 2018 :	112k€



French electricity price breakdown

Production

Aggregation & balancing

Transport & distribution (Grid access)

Internal Tax on the Final Electricity Consumption (TICFE)

Local Taxes (TCFE)

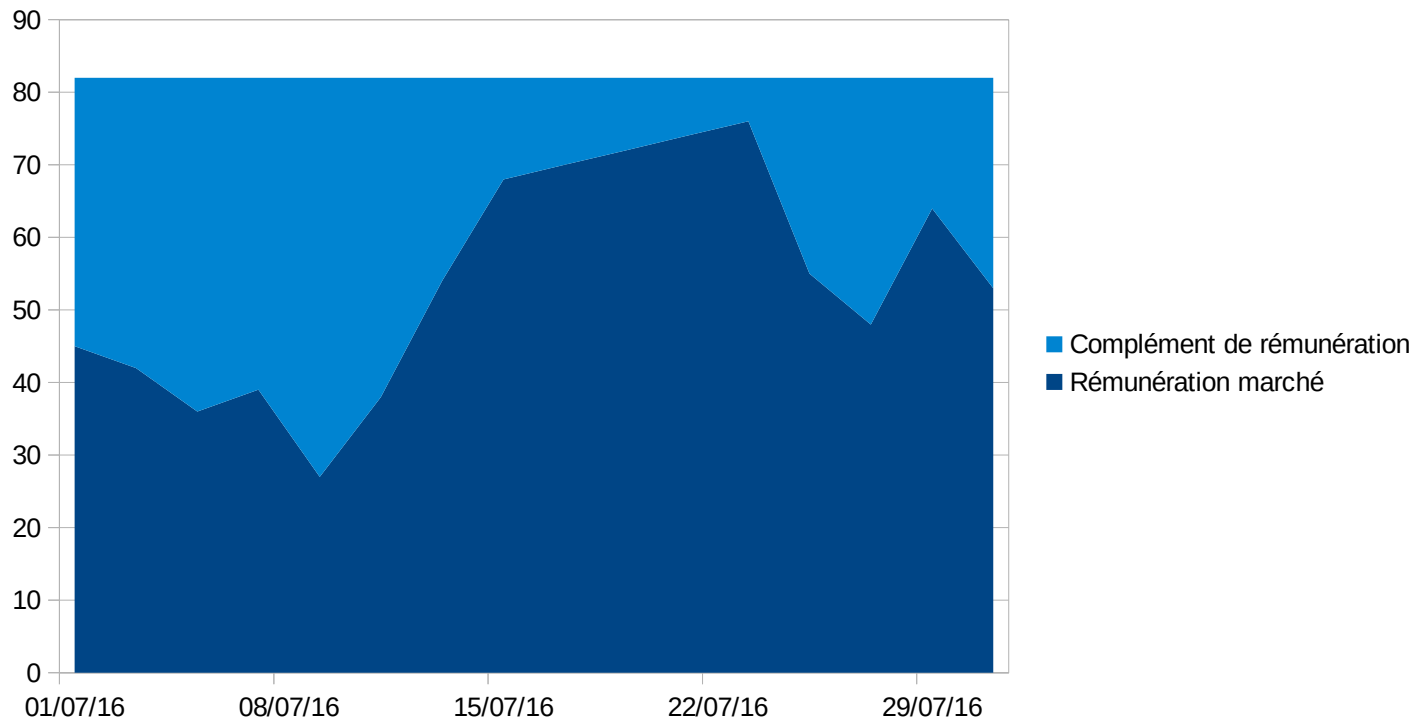
Providing

Value Added Tax (VAT)



Solar electricity call for bids

TICFE, paid by each consumer, finance **remuneration complement** for renewable electricity through **call for bids** :



Remuneration is complemented regarding

13/02/19

17

the market price to get a target price **for 20 years**





Solar electricity call for bids

CRITERIA :

21% : CO2 impact

70% : price

9% : Environment

500 to 850 MWp called every 6 Month for France

30% more production in South of France

2 Families : 500kWp to 5MWp & 5 to 30 MWp



Solar electricity call for bids responses

Last Call responses in July 2018 :

0,5 to 5MWp : 62,5€/MWh

5 to 30 Mwp : 55€/Mwh

+ 3€/Mwh for cytizen crowdfunding



Solar Plant elements & duration

Solar Modules : 30 to 40 years

Since 2018/09/03 : no european barriers for chinese modules

Chinese Solar Modules : 200€/kWp – bad CO2 impact

Inverters : 10 to 15 years

Cables

Structures



How to improve the economic model ?

Reduce Investments

Increase Amortization

Reduce Operating costs

Subsidies and PPA

Questions ?

Thanks !

enercoop.fr

