

Webinar: The on-grid solar PV market in Senegal

Outlook for large scale solar and captive power in Senegalese market



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Summary



1. Presentation of Senegal
2. Situation of Energy sector in Senegal 2012
3. Vision of energy sector by 2020
4. Situation of solar power plant in SENEGAL
5. Outlook of solar large scale by 2020
6. Captive power in Senegal
7. Impact of these realization in future

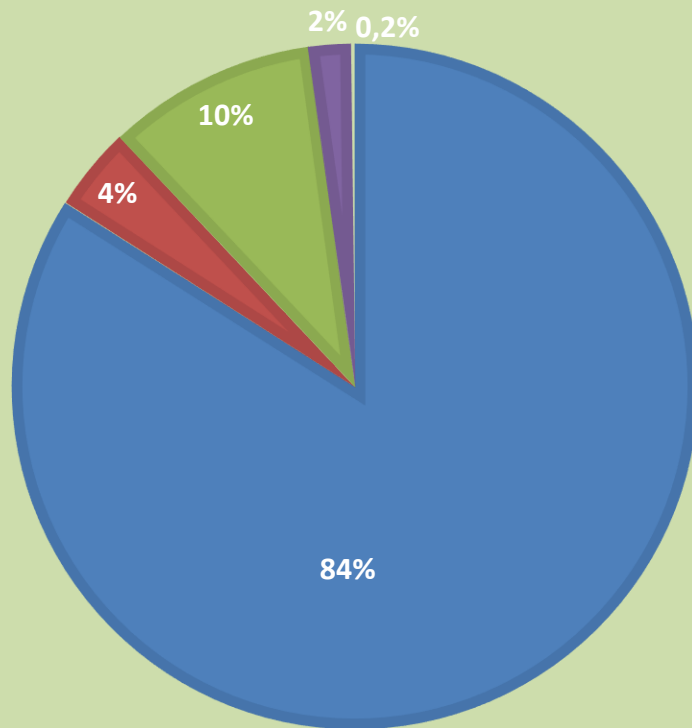
Presentation of SENEGAL

- **Capital city:** Dakar
- **Population:** 14.7 Millions
- **Production capacity:** 886 MW en 2015
- **National Electricity Utility Company:** SENELEC
- **Potential solar radiation:** more than 2,000 per year
- **Growth Rate of SENEGAL :** rising
- **Political situation:** stable and democracy



Situation of Energy sector in Senegal at 2012

■ fuel 85% ■ gaz 4% ■ hydroelectricity 10% ■ Biomass 2% ■ solaire 0,2%



Effects

- Renewable proportion rate is insignificant (feeble)
- Dependency on the fluctuating price of oil barell (Diesel and Gasoil)
- Insufficient production and outdated equipment causing blackout and shedding

Vision of energy sector

Actions of energy ministry about energy Sector:

1- **LPDSE**: Policy Letter of Development RE sector (2013-2017) consisting to :

- promote the renewable energy
- Operationalization of the incentive scheme
- study of the implementation of the feed-in tariff
- Enlarge access of the population to modern energy services by ensuring a more equitable distribution of efforts, favoring disadvantaged regions and vulnerable groups

Vision of energy sector

Actions of government about energy Sector:




2- PSE (Program of Emerging for SENEGAL, energy is one of priority) by 2030

The goals of PSE for RE sector are to:

- Supply Energy with quality and quantity at the lowest price
- Develop the mix of energy
- Promote the energy efficiency
- Develop with IPP large scale solar
- Expanding energy access to population

Outcome: Call private actors to develop IPP large scale solar

Current situation of large scale solar

Location	Operator	Power of plant	Power in grid in 2017	Date of Commissioning	Pic of solar power plant
CICAD Located at Diamniadio at 35km to Dakar	SENELEC	2MW	2MW	2014	
BOKHOL at the North of Senegal	SENERGY II	20MW	8MW	06-2016	
MALICOUNDA (Near Mbour – Thies)	Kima Solaria	22MW	11MW	07-2016	
SANTIOU MEKHE (Near Meouane-Thies)	SENERGY PV	30MW	29,5MW	06-2017	

Solar power plant in prospect by 2020

Item	Operator	Located site	Power rate	Date of commissioning
1	Tenergy	Merina Dakhar	30MW	Oct 2017
2	Energy Ressources	Kahone	20 MW	Sept 2017
3	EDS- Eximag	Sakal	20MW	2018
4	Tender of bider IPP (scaling solar with SFI)	Various sites	100MW	2018
6	KFW-SENELEC	Diass	15 MW	2018
7	KFW-SENELEC Hybrid power plants solar/diesel for non-interconnected to grid	Kidira	2MW	2018

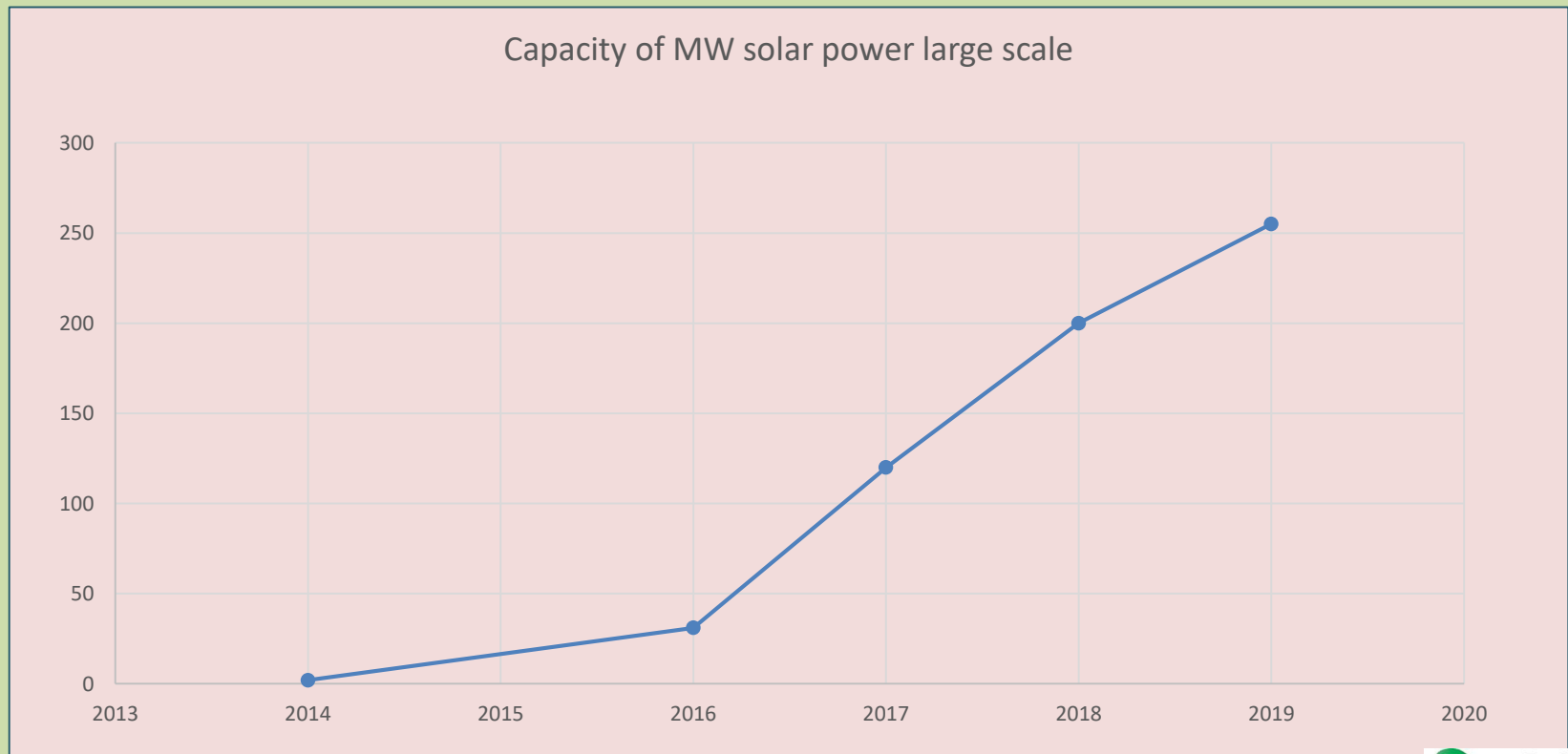
Outlook of solar large scale in Senegal 2017-2020

Year	Cap(MW) Large scale solar
2017	120
2018	200
2019	255

Target goal: 30% of renewable energy (solar-wind) of production proportion

Evolution of solar Power plant

Speed increasing of large scale solar on grid help to achieve the objective
250MW by 2019



Some projects exhorting of mix energy and increasing large scale solar

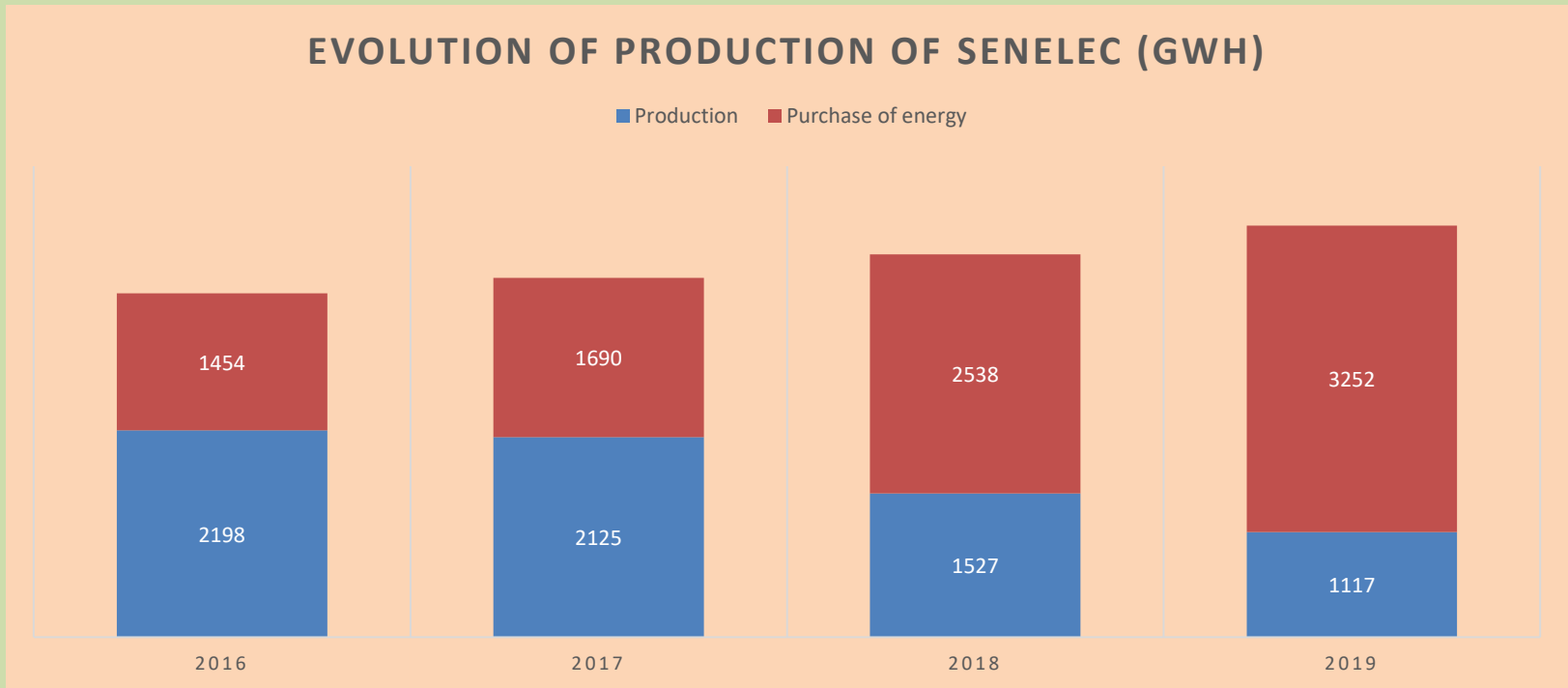
- The project of Train to connect Dakar to the uptowns
- The new airport of Diass will be commissioning soon
- Reducing cost price of Kwh
- Stoping handout from government
- Reducing dependency on fuel fluctuation



Impact: Financial outcome

- Senelec Plans to invest in transport lines, transformers and other devices from 2017 to 2019 for large scale solar,
- Turning on energy production activities
- Enlarge the access to rural areas to Energy,
- Saving fuel and achieving the goals by reducing, price and stopping handout from government

Evolution of SENELEC production/purchase



Eventually SENELEC will produce only 25% of energy

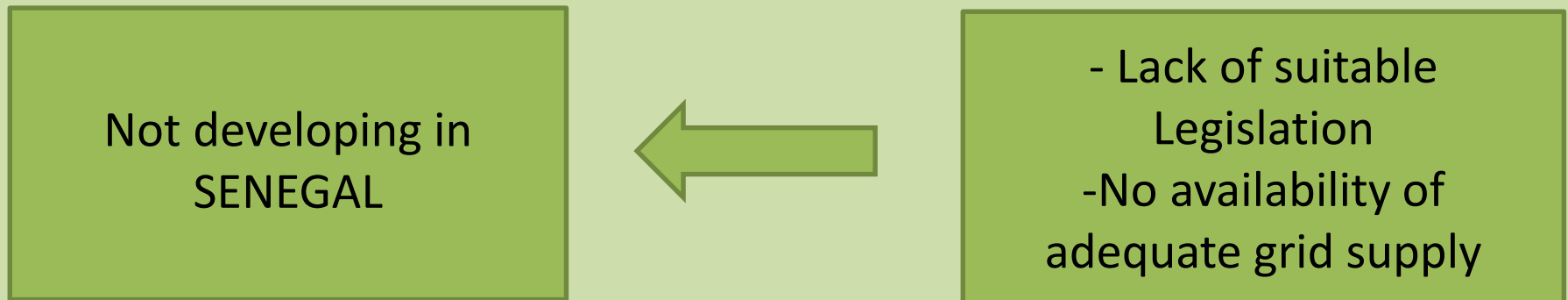
Source of datas: report 2017 of CRSE (national regulatory commission)

Medium term target 2030

Rate of Renewable Energy : 30% of solar and wind to global production in SENEGAL

Captive power in Senegal

Not exist currently in SENECA



There are many projects of captive power for public building, hotel, industrial plant...

Thank you for your attention



Any Questions?