

Renewables in Argentina

Past, Present & Future

GERMANY, SEPTIEMBRE 2017

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GB | Abogados

Renewables in Argentina

Regulatory Framework

Challenges

Access to financing

Scale, cost, efficiency, opportunity

Regulatory Framework

Re adequate and/or add new regulation

Transmission Grid

Expansion planning, financing and cost

Price setting and regulation

Sector competitiveness, price signals

The NEW Regulatory Framework

Mandatory Targets

8% @ 2017-18
16% @ 2021
20% @ 2025
(Pipeline)

Resource

Diversification

Geographical and Technological

New Utility-Scale
RE Framework
Law 27.191

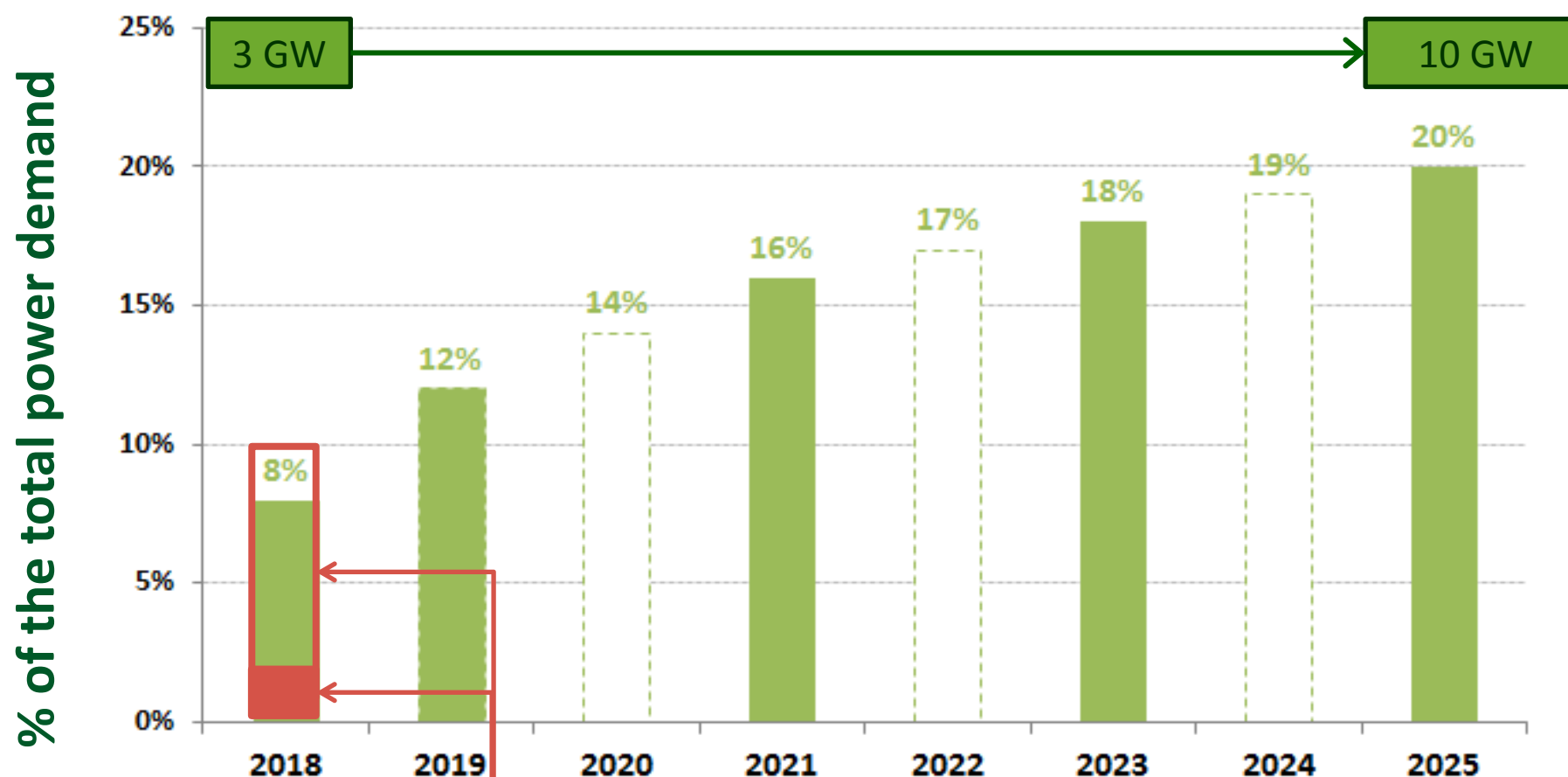
Fiscal Incentives

Applicable to IPPs and Local
Manufacturers

FODER

Public Trust Fund for Guarantees
and Financing

Renewable Energy National Targets 2018-2025



Existing + Actions 2016 9 %	RenovAr Round 1.0	1.1 GW	2.7%
	RenovAr Round 1.5	1.2 GW	3.0%
	Legacy Contracts (R202)	0.5 GW	1.5%
	Existing	0.8 GW	1.8%

Note: Percentage of RE in total demand calculated using P75 generation estimates and 2018 projected demand.

R.E. Program 2016-2025 - Regulatory Framework Elements

2016

Law 27.191

Senate
4Q'14 (94% in favor)
Diputados
4Q'15 (93% in favor)

Decrees 531 y 882

Executive Branch
(Presidency)
1S '16

Res. 71, 72, 123, 1/E & 136

Executive Branch
(Ministry)
1S'16

RenovAr Round 1 CAMMESA 2S'16

Res. 252

Request for
Tenders
2S'16

RenovAr Round 1.5 CAMMESA 2S'16

2017

Decree 471

Executive Branch
(Presidency)
1S '17

Res. 275
Executive Branch
(Ministry) 2S'17
Res. 281
Executive Branch
(Ministry)
2S'17

RenovAr
Round 2
CAMMESA -
2S'17
Term Market
Ministry- 2S'17

RENEWABLES IN ARGENTINA

Regulatory Framework – 3-Level Guaranteed PPA

Contractual Framework

CONTRACTS

1 Power Purchase Agreement

Energy Sales

2 FODER Trust Adhesion Agreement

Energy Payment and Early Termination Guarantees

GUARANTEE

1 FODER Guarantee

Energy Payment

2 Sovereign Guarantee

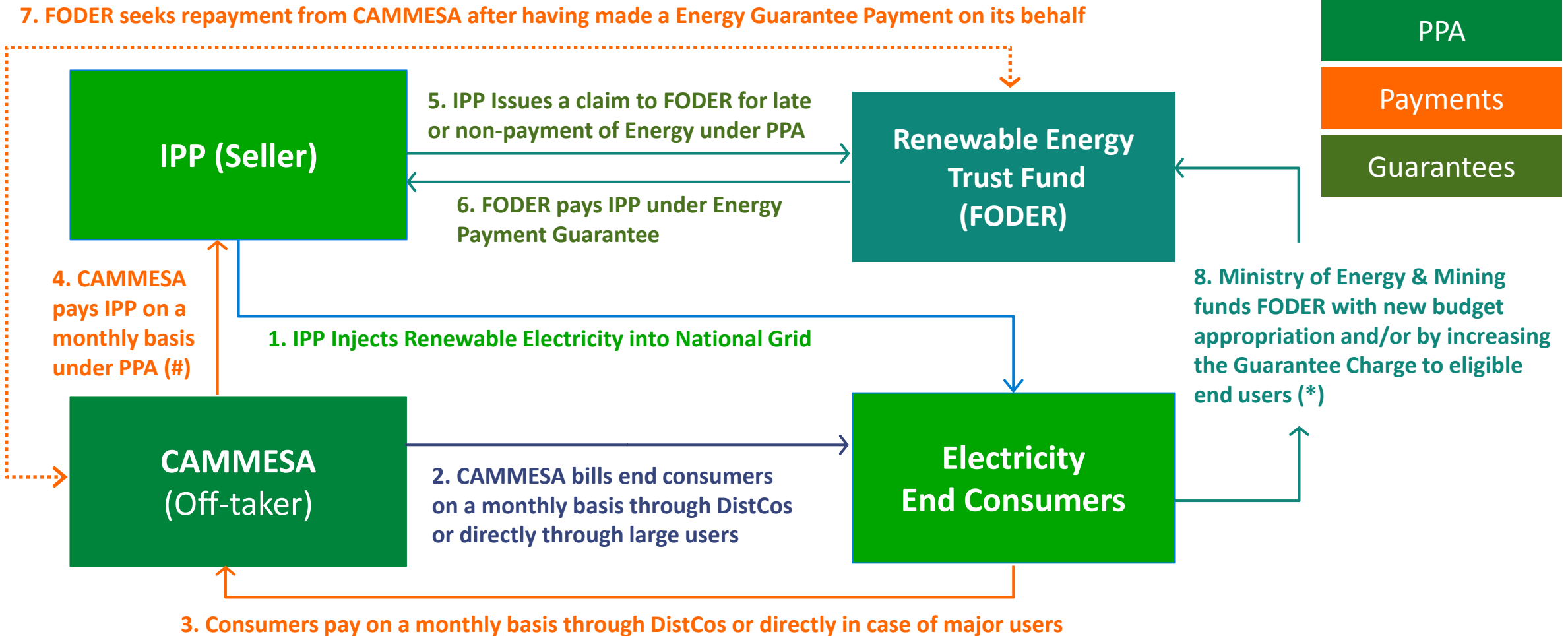
Termination Payment 1

3 World Bank Guarantee

Termination Payment 2

Liquidity Guarantee

1 Energy Payment Guarantee



(*) To replenish FODER so that it always holds 12 months worth of eligible PPA payments as liquid reserve

(#) CAMMESA coordinates efforts with FODER on a monthly basis in order to ensure that all payments are covered in full on due date

Solvency Guarantee (Termination)

2 Termination Payment Guarantee via Treasury Bills

3 The World Bank

5. The FODER submits a claim for needed budget to the Ministry of Energy and Mining / Ministry of Finance and Treasury in exchange of the treasury bills, kept in guarantee

MINEM / MINHYP
Representatives of the National State

**Renewable Energy
Trust Fund (FODER)**
(Trustee: BICE)

6. MINEM / MINHYP
does not have the funds
in full or at all

4. Cause for Sale of Project occurs. IPP
submits the claim for payment of the
Project Put Price to the FODER

7. The FODER **does not** pay to the
IPP the Project Sales Price or pays
partially

11. National State pays
to the WB the amount
due under the
Indemnity Agreement

1. Cause for early
termination occurs

10. IPP claims for the balance to
the FODER Trustor

**CAMMESA
(Offtaker)**

2. IPP notifies
CAMMESA

IPP (Seller)

8. IPP submits the
claim to the WB (*)



THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP

3. PPA is terminated, IPP is free to
sell to third party or spot market

9. The WB pays the eligible amount to the IPP (*)

(*) The FODER grants individuals and legal entities which have issued projects the irrevocable right to directly submit claims before the World Bank in certain cases and to receive payments from the World Bank.

Renewable Power Purchase Agreement (PPA)

Early Termination and Project Put Option

Under the PPA and the FODER Subscription Contract the following events are considered a cause for early termination and/or provide investors with a put option on the Project: :

- Lack of payment on behalf of the Buyer (CAMMESA) for 4 consecutive months or 6 non-consecutive months within the same year (as far as not cured under FODER Guarantee)
- Inability to convert local currency to US\$ and/or impossibility to transfer funds abroad to pay debt services and/or dividends.
- Detrimental changes to the World Bank Guarantee or the FODER.
- Failure to comply with an arbitral award

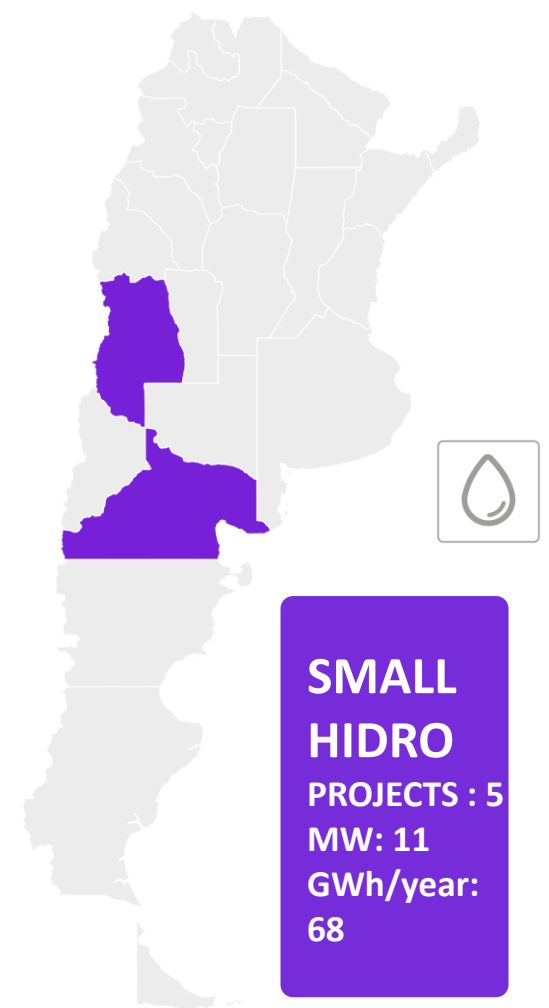
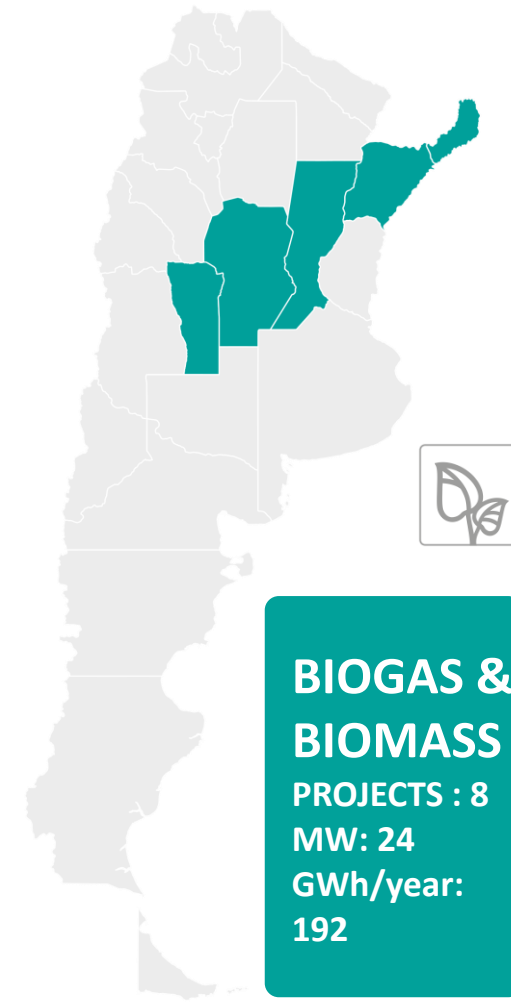
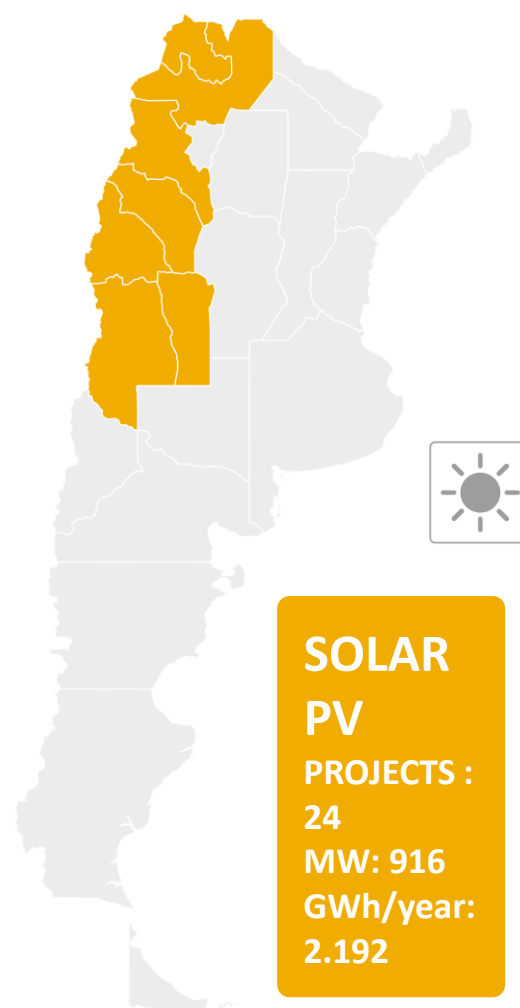
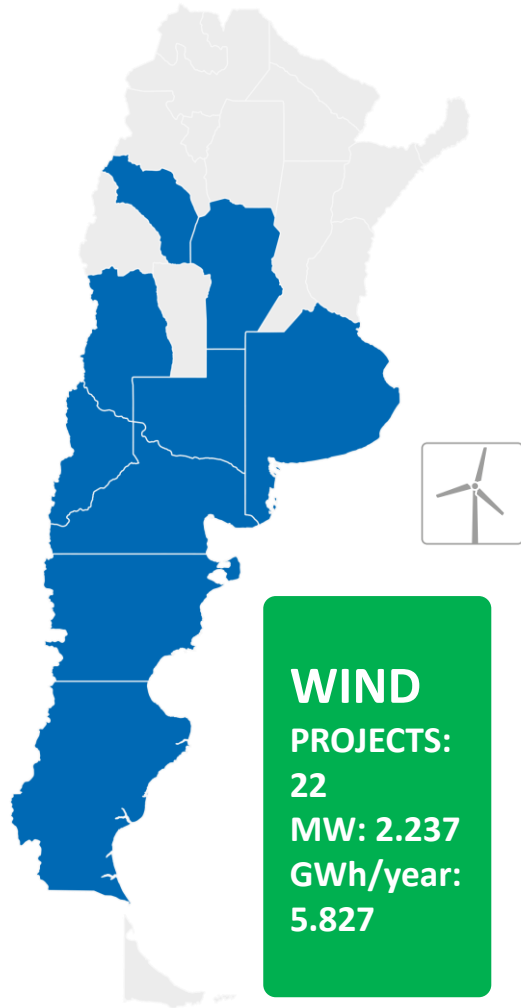
The termination payment is pre-established at 1x of the remaining unamortized book value of the Project's Assets (valued in US\$ according to internationally accepted accounting rules).

RENEWABLES IN ARGENTINA

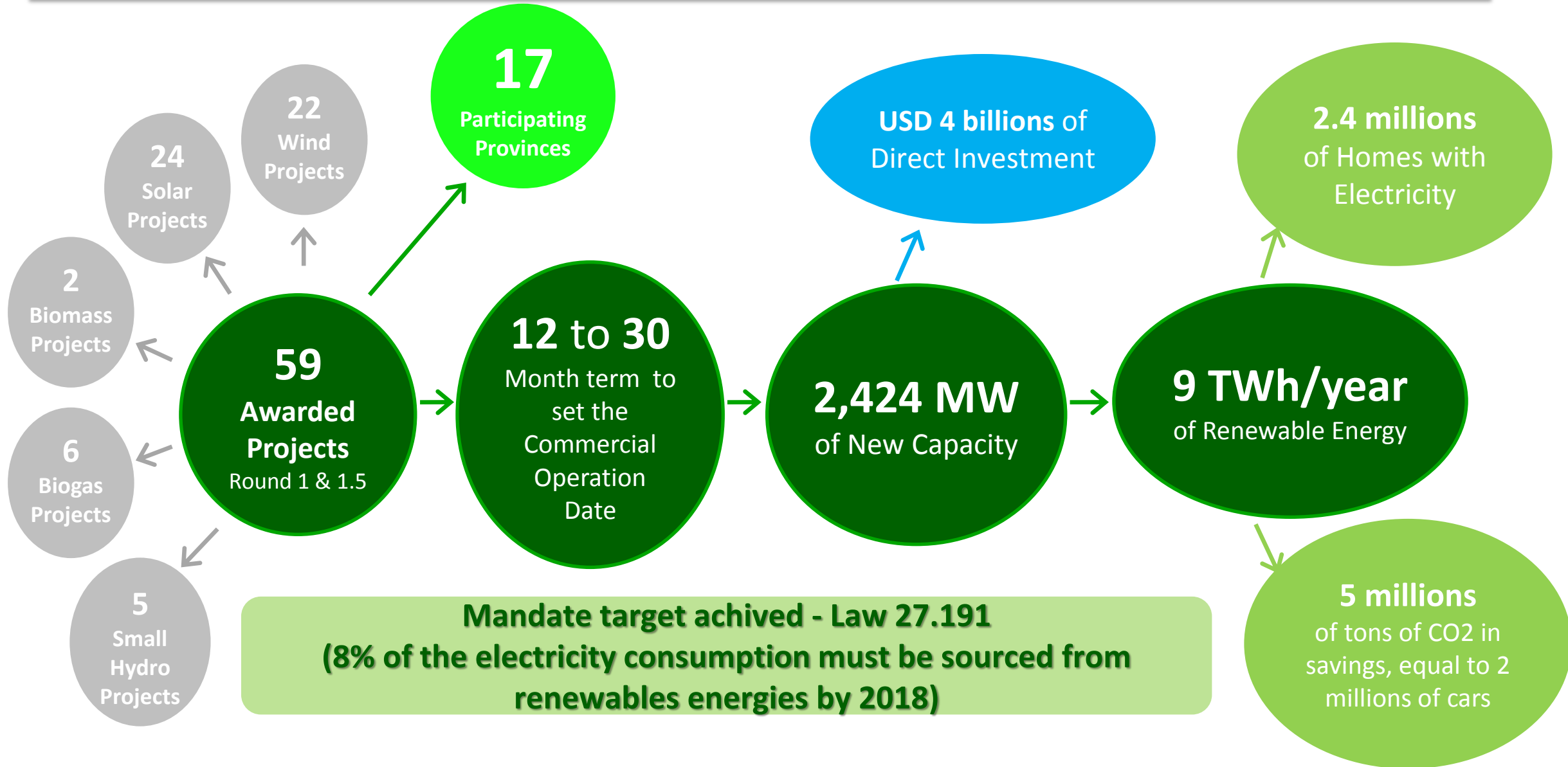
RenovAr 1 – 1.5 & Resolution 202 – The Results

ROUND 1 & ROUND 1.5

59 AWARDED Projects – 2.423,5 MW TOTAL AWARDED CAPACITY & 8.268 gwh/YEAR



RENOVAR 1 SUMMARY

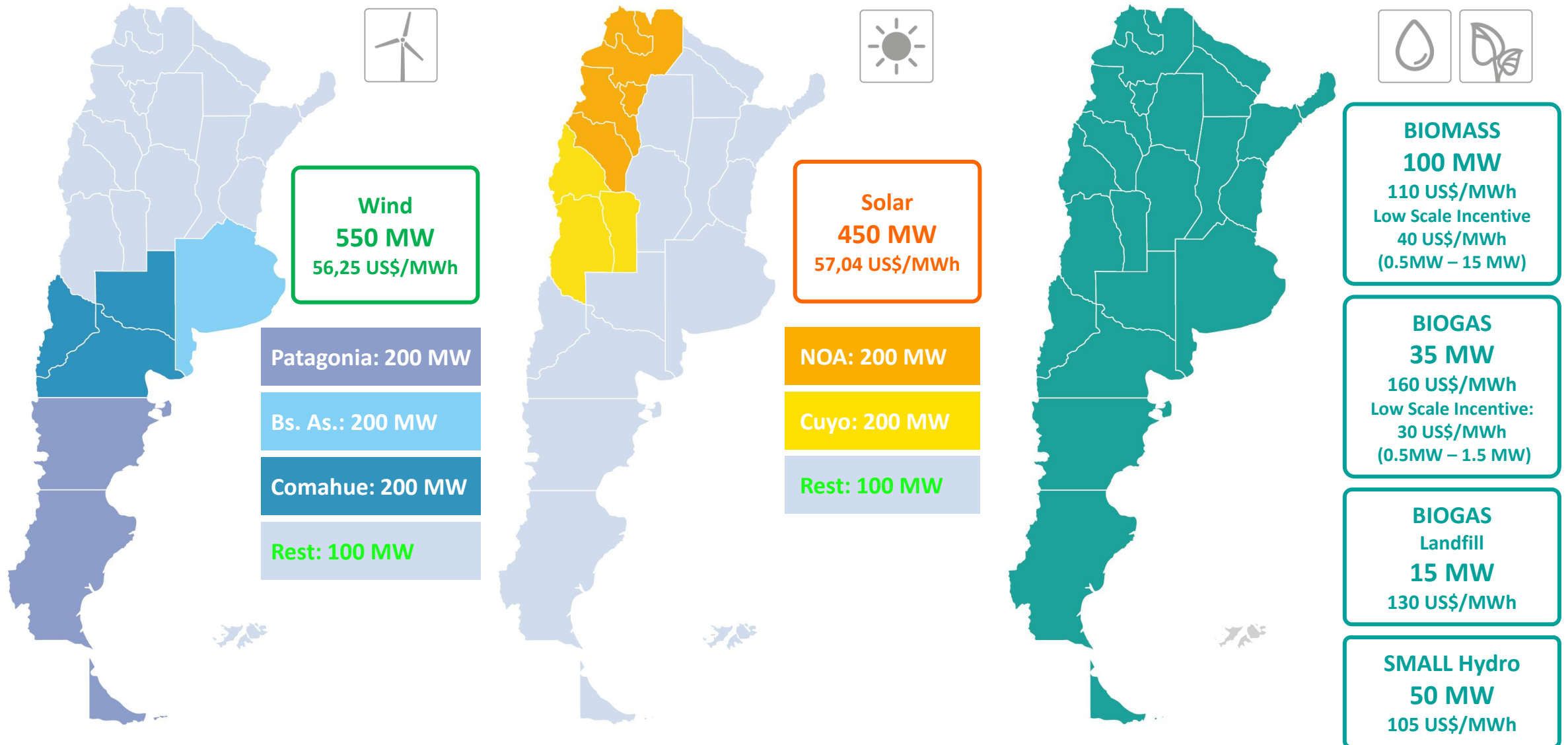


RENEWABLES IN ARGENTINA

Round 2 – The next revolution of the wheel

ROUND 2

1.200 MW required Capacity, distributed by region, technology & Max. Price



Maximum Prices

Based on weighted average prices of Round 1 and Round 1.5



Wind

→ 56,25 USD/MWh



Solar

→ 57,04 USD/MWh



Mini-hydro

→ 105 USD/MWh



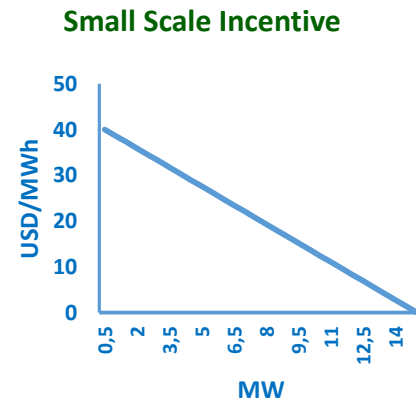
Biogas
Landfill

→ 130 USD/MWh



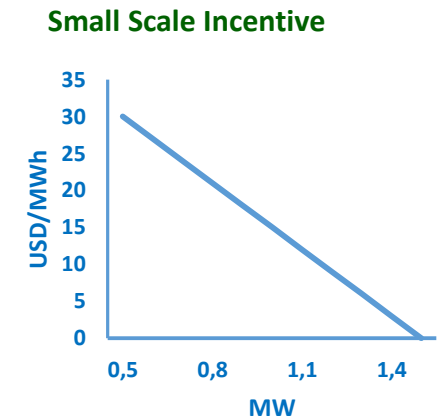
Biomass

→ 110 USD/MWh +



Biogas

→ 160 USD/MWh +



Both the Adjustment Factor (Appendix 8) and Incentive Factor (Appendix 9) are applied in all cases.

PPAs TERM – SPV - BIDS

For all technologies

20 years term

Only for Biomass and Biogas

Option to unilaterally rescind the PPA without any penalties after 10 years.

SPV

One for each Project, except in the case of (i) unification of more than one Project in neighboring sites, and (ii) Extension of existent power plant, with independent: PPA, resource measurement, accounting and asset registration.

Bids

Allowed: 2 Bids with different bidders for 1 Project, but only 1 bid per Project and per Bidder, except an Alternative Bid which must include a generation capacity extension, at the Bidder's expense.

The Alternative Bids are mutually exclusive and the Bidder presents only one contract maintenance guarantee.

Awarding Process

- 1) Ordered list by Adjusted Offered Price for each technology, except for solar and wind, which will have a single list.
- 2) TIE if PRICE difference is less or equal to: a) Wind and Solar: 1 US\$/MWh, b) Biomass y Mini-Hydro: 2 US\$/MWh y c) Biogás and Landfill Biogás: 3 US\$/MWh
- 3) Declared Local Content : Tie-breaker, bigger CND wins, if the difference is more than 3%. If not, lower Price wins.
- 4) Second Tie-breaker: Earlier COD.
- 5) Third Tie-Breaker: By draw.
- 6) Pre-awarding process by required capacity, by technology and by (First appendix 3.1 and then 3.2), controlling financial capability of the strategic partner and the available amount of World Bank Guarantee per technology.

Contracted Energy

- 1 The bidder obliges himself to sell the Contracted Energy (P90) for each year of production(1)
- 2 **Minor deficiency of supply.** If the supplied energy is less than P90, but more than the Minimum Contracted Energy (P99), the bidder can cover the difference in the next 2 year of production. Otherwise they must pay a deficiency of supply penalty fee(2)
- 3 **Major deficiency of supply.** If the supplied energy is less than P99, the bidder can make-up for the difference in the next year of production. Otherwise they must pay a penalty fee of deficiency of supply.(3)

(1) Does not apply to Landfill Biogas.

(2) For Biogas, Biomass and Mini-Hydro there is no Minimum Contracted Energy, and all the deficiency must be covered in the next 2 production years.

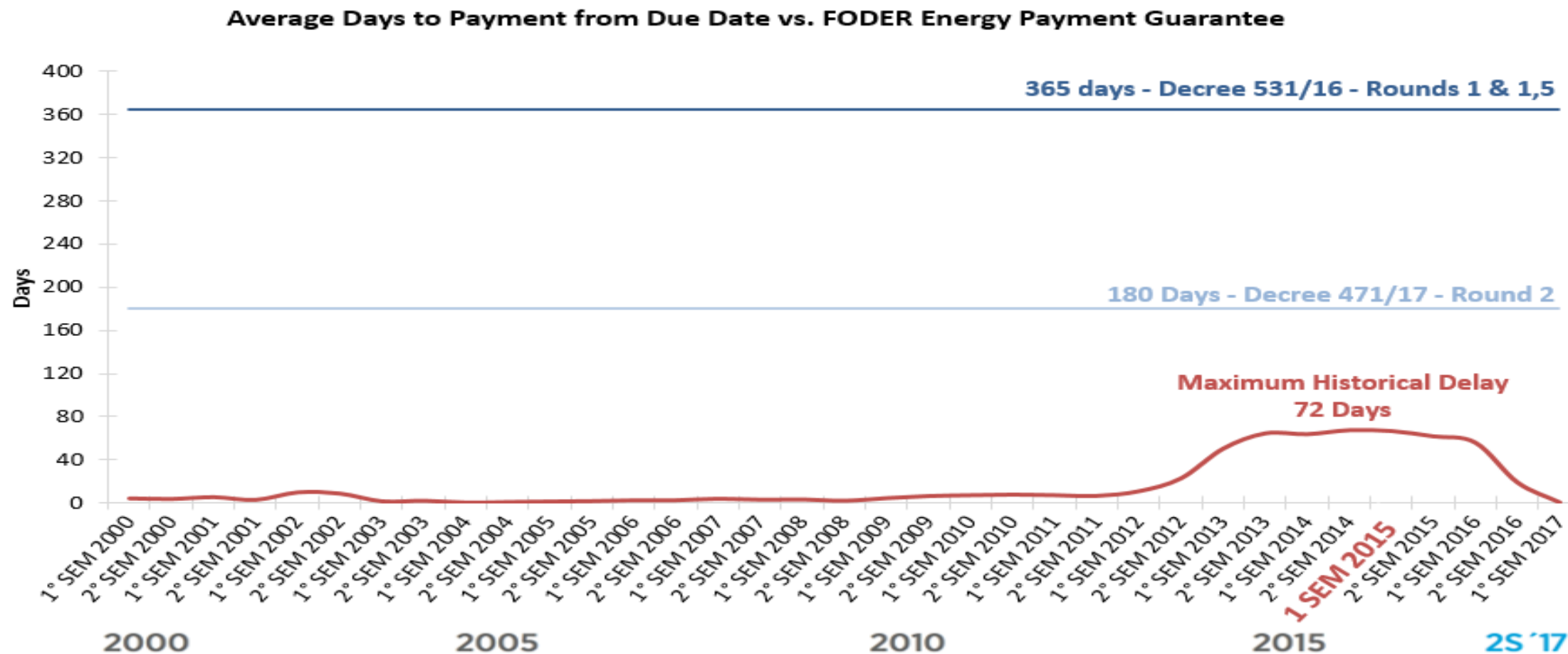
(3) Does not apply to Landfill Biogas, Biogas, Biomass and Mini-Hydro because they do not have Minimum Contracted Energy.

Take or Pay Clause

- In case the projected grid expansions are not in place on time, a Take or Pay clause is enforced
- For wind and solar bids, after 30 months of contract awarding they can not dispatch of capacity restrictions in the transmission grid, CAMMESA will pay the Minimum Contracted Energy (P99) in those restrictions hours.
- For the rest of the technologies, the Contracted Energy (P90) will be paid.

Money Flows – Wholesale Market History – Effects On Guarantee

PPA payment priority *pari-passu* with Rounds 1 & 1.5



Foder Guarantees

IMPLEMENTED FOR ROUND 2

- Treasury Funds
- Demand Charges
- Sovereign Guarantees



Guarantee Account



- Energy Payment Guarantee
- Put Option or Early Termination Guarantee
- Purchase Payment Guarantee

RONDA 2

**Cambio en el plazo
de Aforo Líquido**

Round 1, 1.5 y Res. 202

Round 2

12 months

6 months

Different Energy Payment Guarantee Account for Round 2
From that of Rounds 1, 1.5 y Resolution 202

- Treasury Funds
- Debt Emmission
- ANSES / FGS
- Multilaterals/other



Financing Account



- Construction Loans
- Long term loans
- Financial Guarantees

Sovereign & World Bank Guarantee

	Round 1 & 1.5	Round 2
SOVEREIGN GUARANTEE	100% CAPEX	100% CAPEX
AMMOUNT WB	480 MM USD	250 MM USD*
USD/MW WB	≤500.000	≤500.000#

* Wind & Solar US\$ 210MM, Biomass US\$ 20MM, Biogas US\$ 7MM, Mini Hydro US\$ 10MM y Landfill Biogas US\$ 3MM.d

Maximum amount required by any given Project

The WBG costs are passed on to the projects, offering a 1 BPS discount for each 1% CND

Next Steps - Schedule

	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER
Launch of RenovAr Round 2	16			
Bid Presentation			19	
Bid Evaluation			19	20
Technical Results Publication				20
Economical Bids Opening				21
Contract Awarding				29

RENEWABLES IN ARGENTINA

Renewables Term Market (MATER)

GERMANY, SEPTIEMBRE 2017

Corporate PPAs – Main Characteristics

TRANSMISSION

- Restrictions
- Priority Stablishment

CAPACITY CHARGES

- Backup
- Calculation
- Who Pays It

FISCALIZATION

- When is it done?
- How is it met?
- Penalties

REQUIREMENTS

- GUH (Entitled Big Users)
- Self-generation and/or co-generation projects

Charges

- Garantía FODER
- Comercialization
- Administration Fee

Joint Purchases

- When can a user choose to be excluded?
- Duration of the Exclusion
- Period to return

Corporate PPAs – Main Elements

- Creation of a National Renewable Energy Projects Registry –RENPER-.
- Definition of Entitled Users.
- Opt Out Regulation – Benefits & Obligations
- Contract Declaration Regime, Target compliance evaluation mechanism
- Penalty definition.
- Self & Co Generation compliance regulation.
- Creation of a registry to assign dispatch priority by CAMMESA to avoid *curtailment*.

Opt – Out - to be excluded from joint purchases

- **Entitled Big Users (“Grandes Usuarios Habilitados” - GUH):** users with an average annual demand of 300 kW or above. For the case of the Big DISCOs Users, **they can Opt – Out.**
- **The list** of GUH will be published annually in February by the System Operator (“Organismo Encargado del Despacho” - OED).
- **Option Exercise:** Whithin 12 months from the list’s publication date, in 2 opportunities each year, and at least 3 months earlier of expiration date.
- **Scope:** At the moment of communicating the option’s exercise, the GUH will have to indicate the estimated percentage of demand to be contracted or self/cogenerated, which at all times must be above the limit established in art. 8 of the Law 27.191.
- **Return to the Joint Purchase Scheme:** The option has a minimum duration of 5 years, as from the declared exclusion date. After this period, the GU will continue to be excluded, unless otherwise decided. In case of Opt-In again, conditions will be the same applied to the GUHs who never opted out.

Fixed Charges to guh which do not opt out

		2019 - 2020	2021 - 2022	2023 - 2024	CHARGE	2017 - 2018
Obligation according to Law 27.191	8%	12%	16%	18%	20%	
Comercialization Charge (u\$s/MWh)	0	6	10	14	18	
Administration Charge (u\$s/MWh)	0	0,1	0,1	0,1	0,1	

RENEWABLES IN ARGENTINA

Thank you.

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