

OPPORTUNITIES FOR WINDSIM - ARGENTINA

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windsim



TONSBERG – NORWAY

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Saint Vincent S.A.



We develop **wind energy projects** in a normative context in a stage of preparation of very positive legal rulings in the short term .

Our professional team is composed by diverse engineers with more than 30 years experience on Projecting, Planning, Building and Start Up of middle to high electromechanical power plants.

We co-participate with other financial and legal professionals, as well with interveniantes politics, to have an integral definition of our own projects and a vision of what we believe is a better Argentinean Energy Matrix.

We are building up our own
wind energy industry

Saint Vincent S.A.



Since 2006 we orientate our expertise to the wind energy industry and now a days we can offer a complete Wind Resource Evaluation:

- Measurement campaigns.
- Remote Measurements (SODAR).
- Mesoscalar studies.
- Wind profiles and turbulences all over the considered terrain.

As well, we have faced **Wind Energy Projects**, taking care about the **Project Design**, the **Due Dilligence** and the **Technical Advise**, according on the client needs.

In other occasions, we have assume the roll of Wind Projects **Technical Auditors**, advising either Financial Institutions or Banks.

(All our offered services have in consideration
National and International standards)

Intervalo de Velocidad Media Anual m/s	Área Disponible Km ²	Potencia Instalable GW	Factor de Capacidad Estimado %	Energía Anual Estimada TWh/Año
6 - 6.5	146.788	294	20%	499
6.5 - 7	174.222	348	22%	640
7 - 7.5	149.924	300	26%	650
7.5 - 8	121.573	243	29%	608
8 - 8.5	130.459	261	33%	736
8.5 - 9	95.972	192	37%	601
9 - 9.5	60.169	120	40%	412
9.5 - 10	47.071	94	43%	348
10 - 10.5	53.874	108	46%	424
10.5 - 11	63.000	126	49%	523
11 - 11.5	38.431	77	51%	334
11.5 - 12	18.975	38	53%	171
12 - 12.5	9.048	18	55%	84
> 12.5	6.025	12	56%	57
TOTAL	1.115.530	2.231		6.086

**POTENCIA EOLICA TOTAL INSTALADA EN ARGENTINA
(KW)**



NOMBRE	PROVINCIA	PUESTA EN	POTENCIA		NUMERO DE MAQUINAS	MARCA DE
		MARCHA	Unitaria	N° máquinas		AEROGENERADOR
Pico Truncado	Santa Cruz	ene-96	100	7	700	Vestas
Rada Tilly	Chubut	mar-96	400	1	400	Micon
Antonio Moran	Chubut	set-97	750	8	6.000	Micon
Mayor Buratovich	Chubut	set-97	600	2	1.200	AN Bonus
Darragueira	Buenos Aires	oct-97	750	1	750	Micon
Punta Alta	Buenos Aires	oct-97	600	3	1.800	AN Bonus
Claromeco	Buenos Aires	ene-99	750	1	750	Micon
Pico Truncado	Santa Cruz	feb-01	600	2	1.200	Enercon
Antonio Moran	Chubut	dic-01	660	16	10.560	Gamesa
General Acha	La Pampa	dic-02	900	1	900	Micon
Mina Veladero	San Juan	ago-08	2.000	1	2.000	De Wind
ENOS Necochea	Buenos Aires	dic-09	250	1	250	Micon
Diadema	Chubut	ene-010	900	7	6.300	Enercon
Tordillo	Chubut	ene-010	1.500	2	3.000	IMPISA y NRG
Arauco	La Rioja	abr-011	2.100	12	25.200	IMPISA
Rawson I	Chubut	ene-012	1.800	27	48.600	Vestas V90
Rawson II	Chubut	ene-012	1.800	16	28.800	Vestas V90
Loma Blanca IV	Chubut	jul-013	3.000	17	51.000	ALSTON
Arauco III	La Rioja	oct-013	2.100	12	25.200	IMPISA
POTENCIA TOTAL EOLICA INSTALADA (KW)					214.610	

INSTALLED WIND POWER CAPACITY

POTENCIA EÓLICA INSTALADA EN ARGENTINA



THE RAPIDLY INCREASE OF THE LAST 3 YEARS IS BECAUSE:

- ARRIVAL OF THE NEW SCALE OF WIND TURBINES TO ARGENTINA (2.0 MW).
- THE FINALIZATION OF 3 GRATE PROJECTS:
 - ARAUCO – 50,4 MW.
 - RAWSON – 77,4 MW.
 - LOMA BLANCA – 51 MW.

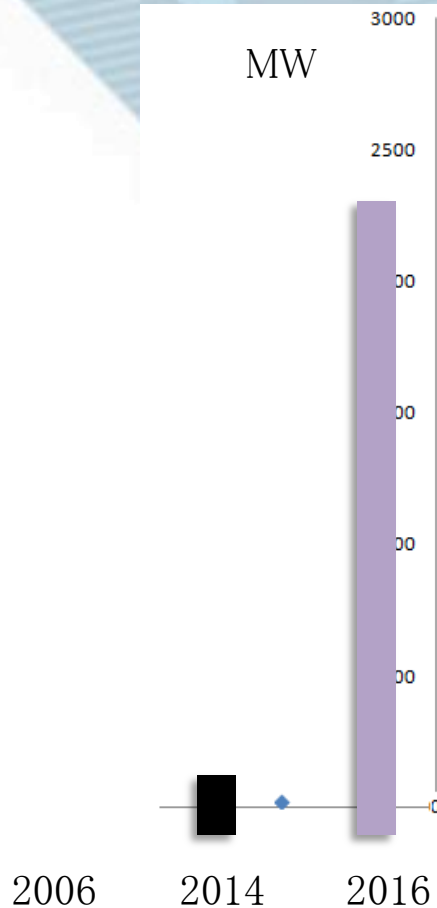
TOTAL INSTALED CAPACITY (MID 2013) = 214 MW

LEGAL FRAMEWORK

Law 26.190:

By 2016, 8% of all the produced electric energy must come from renewable resources (hydro: only up to 30MW)– FEED in Tariff– 15 years contracts

Sanctioned
In
2006



2400 MW FROM RENEWABLE RESOURCES.

WHICH ARE THE LEGAL INSTRUMENTS TO REACH THE

8 % ?

1. DECREE N° 562/09 – GENREN PROGRAM:

IT'S A 2 STAGES TENDER OF ABOUT **2.500 MW** GENERATED BY RENEWABLE SOURCES, WHERE AROUND **1.400 MW** WOULD EXPECTED TO COME FROM WIND ENERGY

2. RESOLUTION 108/11:

IT ALLOWS **SUPPLY CONTRACTS** BETWEEN MEM AND **OFFERS**, ONLY FOR RENEWABLE ENERGIES POWER PLANTS FEED IN TARIFF-15 YEARS CONTRACTS.

WHAT DO WE HAVE UP

TODAY ?

BARRIERS: WHAT HAPPEND?



1. **ALTHOUGH LAW 26.190 WAS SANCTIONED IN 2006, THERE WAS NO REGULATION UP TO 2009.**

THIS MEANS THAT NOTHING COULD BE DONE UP TO THEN.

2. **LACK OF CONFIANCE ON THE WILL OF THE STATE TO GET THE 8 %.**

THOSE 3 YEARS BETWEEN THE SANCTION AND THE REGULATION, IN ADDITION TO THE ABSENCE OF AN INSTRUMENTATION OF THE PROMOTION MECANISM, CREATE A BAD SIGN FOR THE CREDIBILITY ON LAW `S APPLIMENT.

3. **THE FIDUCIARY FOUND WAS NOT CONSTITUTED.**

THERE IS NO FOUNDS TO ENSURE THE ADITIONAL REMUNERATION FOR EACH **kWh** GENERATED BY RENEWABLE SOURCES OF ENERGY.

4. **ADDITIONAL REMUNERATION NOT ACTUALIZED.**

THERE IS A DEVALUATION OF THE REMUNERATION. THE PROMOTION MECANISM FIX AN INCENTIVE PER kWh GENERATED ATTACHED TO DE VALUE OF ARGENTINEAN PESO IN 2006. THIS COUTE IS NOT ENOUGH TO ATTRACT INVESTMENTS.

5. **ADDITIONAL REMUNERATION NOT FIX.**

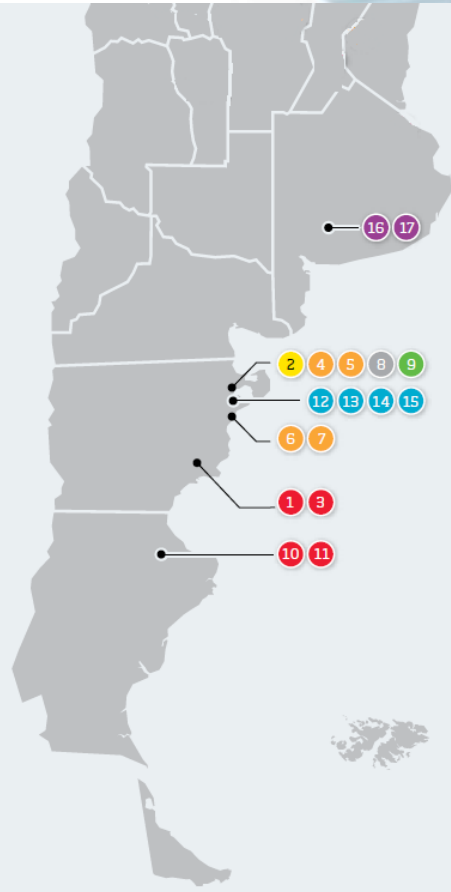
AT THE REGLAMENTATIONS LAW IT `S WRITTEN A **MAXIMUM VALUE OF ADDITIONAL REMUNERATION**. THE REAL REMUNERATION IS DETERMINATED BY A COMPLEX MECANISM THAT GIVES UNCERTANTY TO PROJECTS AT THE EARLY FACTIBILITY STAGE.

Currently the law 26190, is in review with special reference to points 3 to 5 with analysis in the Legislative Chambers of the Congress of Argentina.

STAND BY PROJECTS

WITH INVESTMENT, THE OBJECTIVE OF 8 % IS STILL REACHABLE.

ARGENTINA HAVE NOW A DAYS MANY PROJECTS ALREADY MEASURED AND DEVELOPED UP TO THE BUILDING STAGE.



Eólica - 754 MW			
Central	Proponente	Potencia MW	
1	Malaspina I	IMPISA	50,0
2	Pto. Madryn Oeste	Energias Sustentables S.A.	20,0
3	Malaspina II	IMPISA	30,0
4	Pto. Madryn II	Emgasud Renovables S.A.	50,0
5	Pto. Madryn I	Emgasud Renovables S.A.	50,0
6	Rawson I	Emgasud Renovables S.A.	50,0
7	Rawson II	Emgasud Renovables S.A.	30,0
8	Pto. Madryn Sur	Patagonia Wind Energy S.A.	50,0
9	Pto. Madryn Norte	Internacional New Energies S.A.	50,0
10	KOLUJEL KAIKE I	IMPISA	50,0
11	KOLUJEL KAIKE II	IMPISA	25,0
12	Loma Blanca I	Isolux S.A.	50,0
13	Loma Blanca II	Isolux S.A.	50,0
14	Loma Blanca III	Isolux S.A.	50,0
15	Loma Blanca IV	Isolux S.A.	50,0
16	Tres Picos I Básica	Sogestic S.A.	49,5
17	Tres Picos II Básica	Sogestic S.A.	49,5

IT IS ESTIMATED THAT THROUGH **RESOLUTION 108** THERE ARE ALREADY APROX. **5.000 WIND MW** DEVELOPED, PENDING OF FINANCE.

AND MANY OF THEM ARE SITUATED ON PLACES LIKE THIS:



OBJECTIVES AND CHALLENGES

Regarding WIND SIM and wind resource studies, include:

- 1- PROGRESS WIND SIM-AS LEADER IN THE USE OF THE METHODOLOGY CFD.**
- 2- RELEASE MEDIA ACADEMIC. PUBLIC AND PRIVATE UNIVERSITIES AND INSTITUTIONS., SUCH AS THE UNIVERSITY OF BUENOS AIRES, ARGENTINA WIND ENERGY ASSOCIATION, ETC.**
- 3- DRIVE IN THE WIND DEVELOPERS PROJECT ALIENS, THE COMPARATIVE ADVANTAGES WITH OTHER TECHNIQUES.**
- 4- BUILT IN OUR PORTALIO EXTERNAL AUDITS TO COMPANIES AND BANKS , THE METHODOLOGY OF WIND SIM CFD.**
- 5- PROMOTE EVENTS IN CONGRESS AND LOCAL EVENTS.**

THANK
YOU !



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