



Renewable Energy Procurement Overview

U.S. Department of Navy
Renewable Energy Program Office

U.S. Department of State

12 April 2016

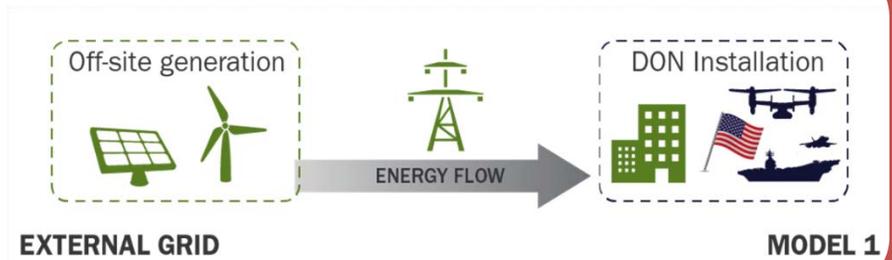


REPO Project Development Models

Different Development Models Accommodate for Diverse Requirements and Market Conditions

Model 1

Off-base Generation for On-base Consumption
(Acquisition: USC/PPA)



Model 2

On-base Generation for Off-base Consumption
(Real Estate: Outgrant)



Model 3

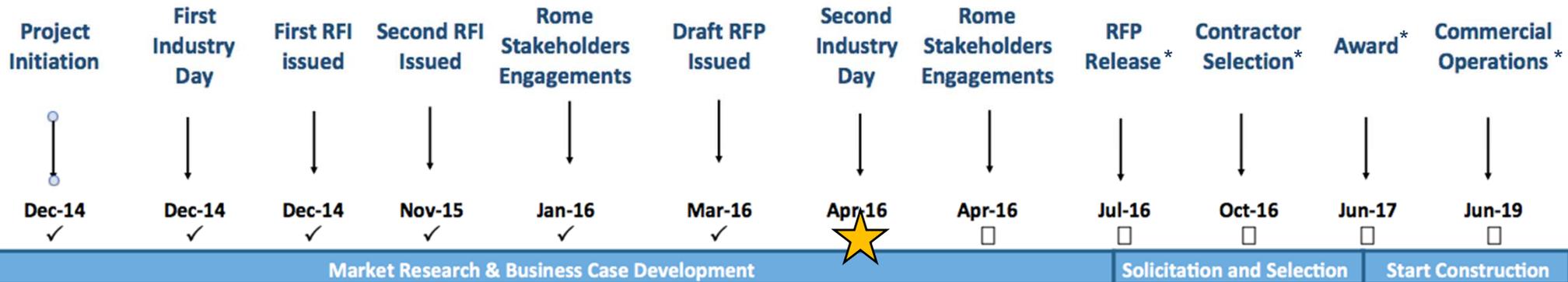
On-base Generation for On-base Consumption
(Acquisition: PPA)





Project History & Timeline

**Dates are subject to change*



Jan 2016 Engagements

- **U.S. Ambassador to Italy**
- **Ministry of Economic Development**
- **CONSIP**
- **GSE**
- **Terna**
- **Italian Industry**

Apr 2016 Engagements

- **Ministry of Economic Development**
- **AEEG**
- **GME**
- **Terna**
- **ANEV**
- **Italian Industry**



Overview of Technical Requirements

What is the Government's requirement?

(1) *Full-Service Electricity: Renewable + Conventional*

Key attributes of the Government's requirement:

(2) *Facilities Points of Delivery (PODs)*

(3) *Projected Electricity Requirement & Minimum Annual Production Obligation*

(4) *Term Length & Contract Stages*

(5) *Price*

(6) *Reporting*

Non-Performance Provisions:

(7) *Contractor Failure to Perform*

(8) *Termination for Convenience*



(1) Full-Service Electricity

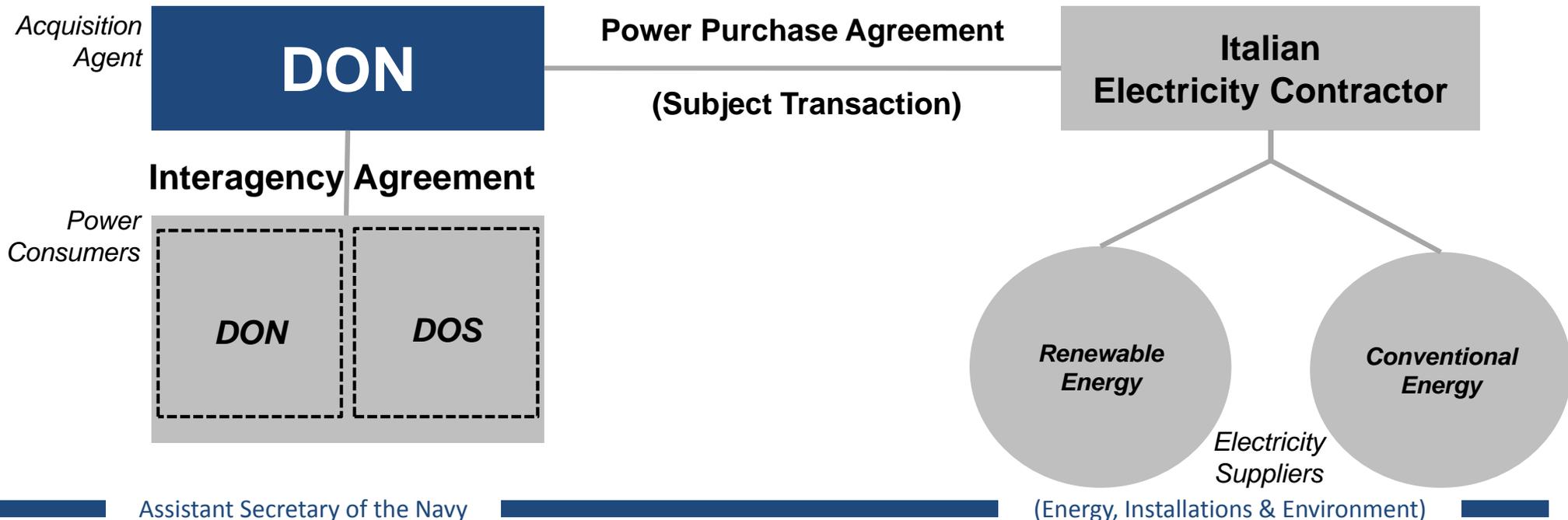
Requirements Contract

- Government may increase or decrease its load with behind-the-meter projects

Renewable Energy

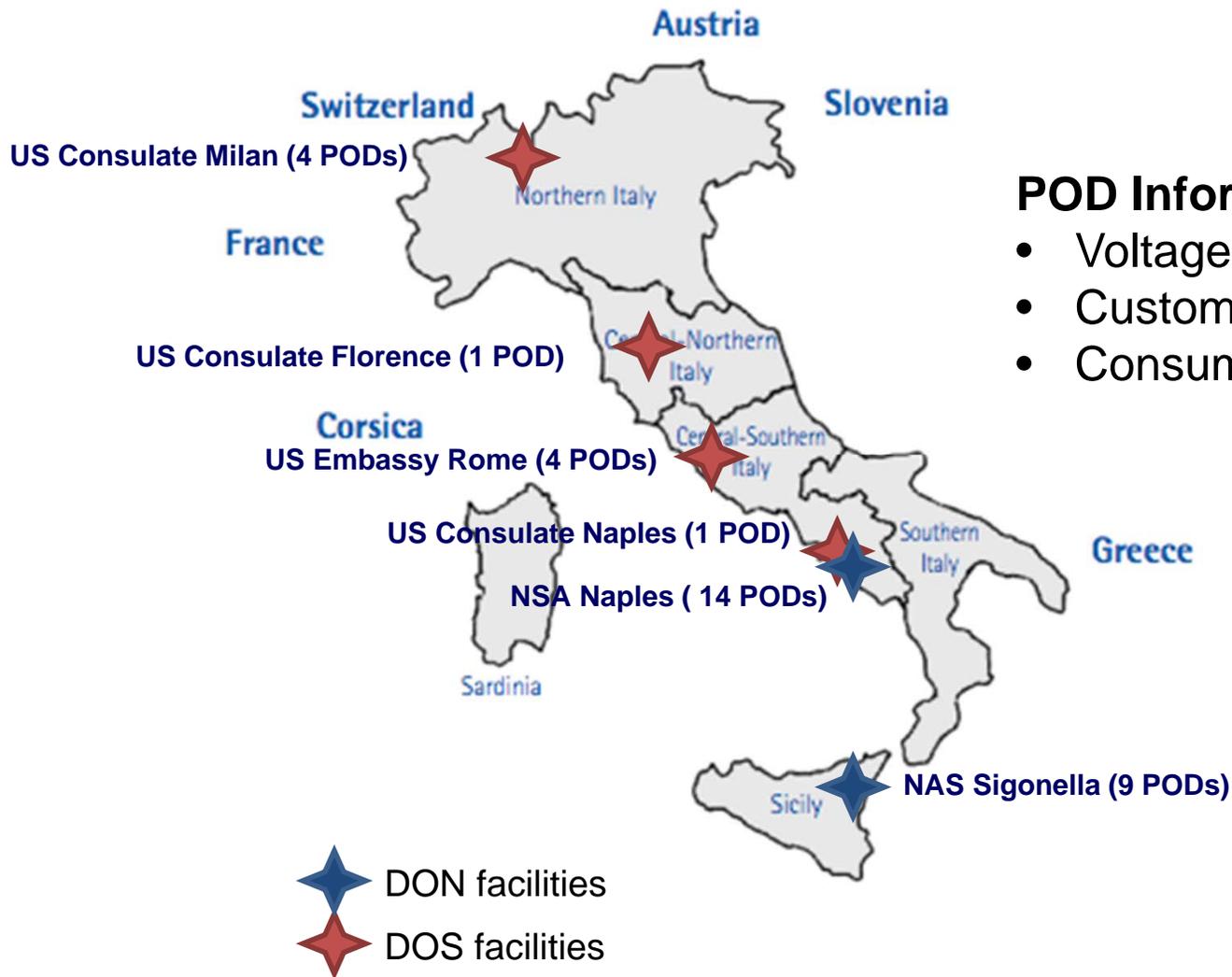
- Generated from a new Renewable Energy Generation System (REGS) located on private land in Italy
- Bundled with a Guarantee of Origin from the REGS

Conventional Energy will fulfill remainder of electricity requirement





(2) Facilities & PODs



POD Information provided in DRFP

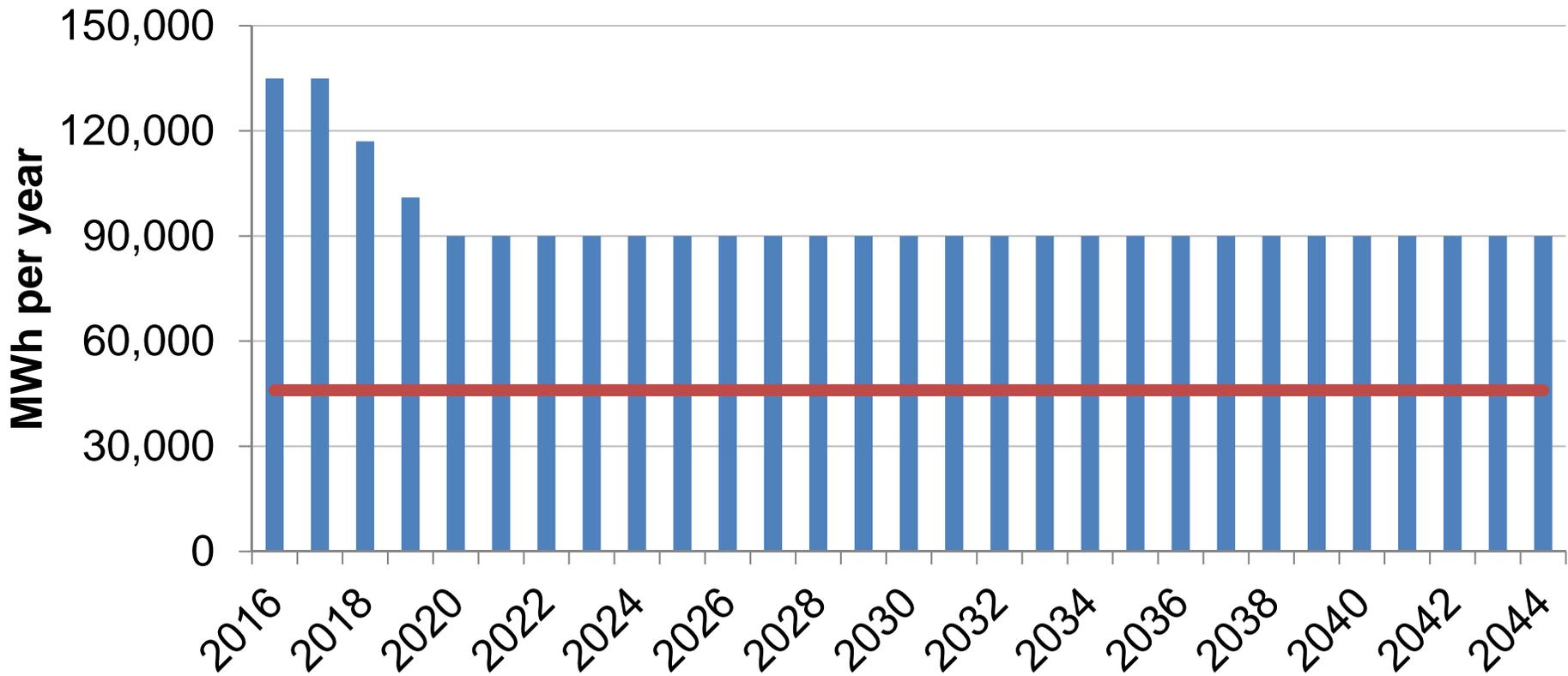
- Voltage level
- Customer class
- Consumption



(3) Projected Electricity Requirement

■ Estimated USG Total Consumption

— Contractor's Minimum Annual Production Guarantee from new REGS*



*Minimum Annual Production Guarantee will not necessarily begin in 2016 or end in 2044



(4) Term Length & Contract Stages

Scenario 1

CLINS 0001 to 0013

Contract term length: 11-30 years

In the DRFP, we use **25 years** as the example term length for Scenario 1.

Definition of “new”: In this scenario, DON defines “new Renewable Energy generation” as a REGS that must not be, or ever have been previously, placed into service as of the Effective Date. Where the proposed REGS is part of a larger or existing generation facility, only the new capacity generation would qualify, and the new generation must be sub-metered such that the Renewable Energy delivered to the Government is verifiable.

Scenario 2

CLINS 2001 to 2005

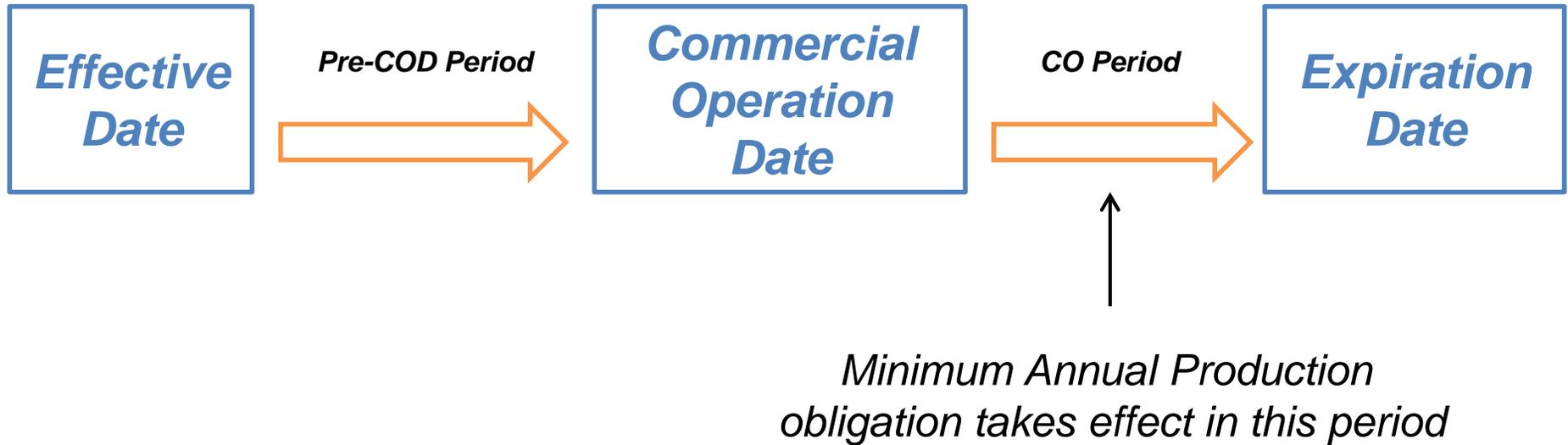
Contract term length: Up to ten (10) years

In the DRFP, we use **10 years** as the example term length for Scenario 2.

Definition of “new”: In this scenario, DON seeks offers from industry for generation systems that industry considers to be new REGS. Please describe in detail the attributes of your proposed system(s), including why you consider it to be “new.”



(4) Term Length & Contract Stages





(5) Price: Conventional & Renewable Pricing Components

Pricing Components Associated with Conventional Energy

2002 Conventional Energy

2005 Scheduling Services

2003 Other Market Charges

Pricing Components Associated with Renewable Energy

2001 Renewable Energy

2005 Scheduling Services

2003 Other Market Charges

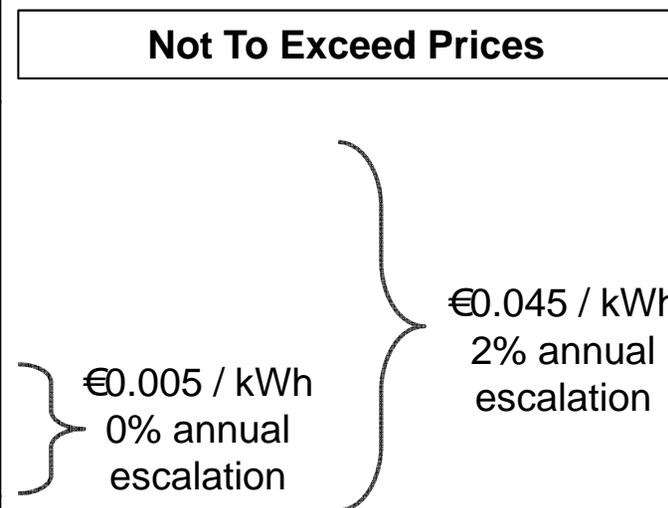
2004 Congestion for Renewable Energy

Numbers represent CLINs from Scenario 2



(5) Price: Fixed & Pass-through Pricing Components

Firm Fixed Price per kWh		Offeror to submit pricing?
2001	Renewable Energy	YES Entire term
2004	Congestion for Renewable Energy	YES Production Years Zero, 1, and 2
2005	Scheduling Services	YES Entire term
Pass-Through Charges		
2002	Conventional Energy	NO
2003	Other Market Charges	NO
2004	Congestion for Renewable Energy	NO Production Years 3 through Contract end





(5) Price: Firm Fixed Price Components

2001

Renewable Energy

- *Generated from solar, wind, biomass, landfill gas, ocean (including tidal, wave current, and thermal), geothermal, municipal solid waste, or hydroelectric assets*
- *Verified with corresponding Guarantees of Origin associated with the Renewable Energy Generation System (REGS) for each MWh of energy*

2004

Congestion for Renewable Energy

- *Cost of transmission congestion applied to bilateral contracts cleared through the GME, which will be applied to each kWh of Renewable Energy purchased by the Government during any Production Month.*

2005

Scheduling Services

- *Scheduling of electricity deliveries and the related dispatching and imbalance functions*
- *Marketing and selling to retail customers (for medium voltage customers only; for low voltage customers, this cost is regulated by AEEG under the Component PCV which is included in Other Market Charges)*
- *Obtaining and holding the necessary authorizations, in accordance with current legislation, on behalf of the Government, to purchase transportation rights and production capacity*
- *The application of the 2003/87/CE Directive "Emissions Trading" on GHG emissions*



(5) Price: Pass Through Charges

2002

Conventional Energy

- *Supplemental grid energy provided through the Italian Power Exchange*
- *Total cost calculated after the conclusion of each Conventional Month*
- *Price will be calculated from average monthly PUN price for each Time of Use (TOU) Band, published by GME*

2003

Other Market Charges

- *Listed in Attachment C*
- *Apply to all kWh delivered (Renewable and Conventional)*



(6) Reporting

Monthly Review

- *Renewable generation compared to consumption*
- *Proof of GOs*
- *Conventional electricity sales and price*
- *Total cost*

Annual Review

- *Minimum annual production compliance*



(7) Contractor Failure to Perform

Production Shortfall Below Minimum Production Guarantee

- *Contractor must provide a “Cure Plan” to address production issues*
- *If the annual average PUN price is LESS than CLIN 2001 + CLIN 2004, there is no credit due to the Government*
- *If the annual average PUN price is GREATER than CLIN 2001 + CLIN 2004, then the Contractor must pay a credit equal to the price difference multiplied by the shortfall*

Failure to meet Expected COD

- *Government shall assess liquidated damages and is currently assessing what amount would be fair and reasonable*



(8) Termination for Convenience

The Government may terminate the contract at any time

- *If a contract is terminated for convenience, the Government is responsible for any benefit it received up until the time of termination, and allowable costs incurred by the Contractor to execute the termination*
- *The Contractor is required to use commercially reasonable efforts to sell the Renewable Energy from the REGS in order to reduce the Government's termination payment*

Options for Making Termination Payment*

- (1) Lump Sum Termination Payment*
- (2) Monthly Termination Payment*

**Decided by the Government at the time of termination*



Mapping Technical Requirements to DRFP

Section	Requirement
C.1.2	Requirements-type contract
C.4.1	Points of Delivery
C.6.1	Minimum Annual Production
B.2	Term Length
C.2.2	Contract Stages
C.5.4	Not-to-Exceed Price
C.7.1	Monthly Review and Invoice
C.7.2	Annual Report
H.8	Termination for Convenience



Questions?

Grazie per la vostra attenzione!



Backup Slides



Attachment B: Points of Delivery: DRFP Table 5

Agency	Installation	POD Code	Supply Voltage	FY15 Consumption (kWh)	Domestic/Non-Domestic
Department of Navy	NAS Sigonella	IT001E00202835	MV	27,559,000	Non-Domestic
		IT001E00202822	MV	16,944,000	Non-Domestic
		IT001E00211441	MV	8,346,000	Non-Domestic
		IT001E00202782	MV	5,372,000	Non-Domestic
		IT001E00201557	MV	3,873,000	Non-Domestic
		IT001E90121795	LV	323,000	Non-Domestic
		IT001E00255979	MV	274,000	Non-Domestic
		IT001E94659360	LV	34,000	Non-Domestic
		IT001E00254532	LV	9,000	Non-Domestic
		IT001E00204018	MV	31,278,000	Non-Domestic
	NSA Naples	IT001E00211406	MV	22,494,000	Non-Domestic
		IT001E00204001	MV	14,101,000	Non-Domestic
		IT001E00203986	MV	3,994,000	Non-Domestic
		IT001E00222890	MV	827,000	Non-Domestic
		IT001E00236724	MV	478,000	Non-Domestic
		IT001E66135243	LV	100,000	Non-Domestic
		IT001E87617374	LV	68,000	Domestic
		IT001E66136227	LV	36,000	Non-Domestic
		IT001E00201557	LV	10,000	Domestic
		IT001E81267291	LV	4,000	Non-Domestic
Department of State	US Consulate General Florence	IT001E66240106	LV	4,000	Non-Domestic
		IT002E3391878A	LV	1,000	Non-Domestic
	US Consulate General Milan	IT001E80692140	LV	1,000	Non-Domestic
		IT001E41390086	MV	264,000	Non-Domestic
	US Consulate General Naples	IT012E00595941	MV	527,000	Non-Domestic
		IT012E00595888	LV	55,000	Non-Domestic
	US Trimission Rome	IT012E00595927	LV	32,000	Non-Domestic
		IT012E00595885	LV	16,000	Non-Domestic
		IT001E81474882	LV	660,000	Non-Domestic
	US Trimission Rome	IT002E4120327A	MV	3,340,000	Non-Domestic
IT002E4120585A		MV	1,516,000	Non-Domestic	
IT002E5671936A		MV	387,000	Domestic	
		IT002E3765137A	MV	352,000	Domestic



Attachment D: Load Projections by POD

	A	B	C	D	E	F	G	H	I	J	K
1	Agenc	Installation	POD Code/ Codice POD	2015	2016	2017	2018	2019	2020	2021	2022
2	DON	NAS Sigonella	IT001E00202835	27,559,000	27,559,000	27,559,000	24,496,000	21,434,000	18,371,000	18,371,000	18,371,000
3	DON	NAS Sigonella	IT001E00202822	16,944,000	16,944,000	16,944,000	15,061,000	13,178,000	11,295,000	11,295,000	11,295,000
4	DON	NAS Sigonella	IT001E00211441	8,346,000	8,346,000	8,346,000	7,418,000	6,491,000	5,563,000	5,563,000	5,563,000
5	DON	NAS Sigonella	IT001E00202782	5,372,000	5,372,000	5,372,000	4,775,000	4,178,000	3,581,000	3,581,000	3,581,000
6	DON	NAS Sigonella	IT001E00201557	3,873,000	3,873,000	3,873,000	3,442,000	3,012,000	2,582,000	2,582,000	2,582,000
7	DON	NAS Sigonella	IT001E90121795	323,000	323,000	323,000	288,000	252,000	216,000	216,000	216,000
8	DON	NAS Sigonella	IT001E00255979	274,000	274,000	274,000	244,000	213,000	183,000	183,000	183,000
9	DON	NAS Sigonella	IT001E94659360	34,000	34,000	34,000	30,000	26,000	22,000	22,000	22,000
10	DON	NAS Sigonella	IT001E00254532	9,000	9,000	9,000	8,000	7,000	6,000	6,000	6,000
11	DON	NSA Naples	IT001E00204018	31,278,000	31,278,000	31,278,000	26,829,000	22,380,000	17,932,000	17,932,000	17,932,000
12	DON	NSA Naples	IT001E00211406	22,494,000	22,494,000	22,494,000	19,294,000	16,095,000	12,896,000	12,896,000	12,896,000
13	DON	NSA Naples	IT001E00204001	14,101,000	14,101,000	14,101,000	12,096,000	10,090,000	8,084,000	8,084,000	8,084,000
14	DON	NSA Naples	IT001E00203986	3,994,000	3,994,000	3,994,000	3,426,000	2,858,000	2,290,000	2,290,000	2,290,000
15	DON	NSA Naples	IT001E00222890	827,000	827,000	827,000	709,000	592,000	474,000	474,000	474,000
16	DON	NSA Naples	IT001E00236724	478,000	478,000	478,000	410,000	342,000	274,000	274,000	274,000
17	DON	NSA Naples	IT001E66135243	100,000	100,000	100,000	86,000	72,000	58,000	58,000	58,000
18	DON	NSA Naples	IT001E87617374	68,000	68,000	68,000	58,000	49,000	39,000	39,000	39,000
19	DON	NSA Naples	IT001E66136227	36,000	36,000	36,000	30,000	25,000	20,000	20,000	20,000
20	DON	NSA Naples	IT001E00201557	10,000	10,000	10,000	9,000	7,000	6,000	6,000	6,000
21	DON	NSA Naples	IT001E81267291	4,000	4,000	4,000	3,000	3,000	2,000	2,000	2,000
22	DON	NSA Naples	IT001E66240106	4,000	4,000	4,000	3,000	3,000	2,000	2,000	2,000
23	DON	NSA Naples	IT002E3391878A	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
24	DON	NSA Naples	IT001E80692140	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
25	DOS	US Consulate General Florence	IT001E41390086	264,000	251,000	249,000	247,000	245,000	244,000	243,000	241,000
26	DOS	US Consulate General Milan	IT012E00595941	527,000	502,000	498,000	494,000	491,000	488,000	486,000	483,000
27	DOS	US Consulate General Milan	IT012E00595888	55,000	52,000	52,000	52,000	51,000	51,000	51,000	50,000
28	DOS	US Consulate General Milan	IT012E00595927	32,000	30,000	30,000	30,000	30,000	30,000	29,000	29,000
29	DOS	US Consulate General Milan	IT012E00595885	16,000	15,000	15,000	15,000	14,000	14,000	14,000	14,000
30	DOS	US Consulate General Naples	IT001E81474882	660,000	628,000	623,000	618,000	614,000	611,000	607,000	604,000
31	DOS	US Trimission Rome	IT002E4120327A	3,340,000	3,177,000	3,153,000	3,130,000	3,110,000	3,092,000	3,075,000	3,059,000



Attachment F: Expected TOU Load Shares

Attachment F: Expected Time of Use Band Load Shares

Consumption by Time of Use Band			
	F1	F2	F3
NSA Naples	37%	24%	39%
NAS Sigonella	38%	24%	38%
US Trimission Rome	40%	20%	40%
US Consulate General Florence	40%	20%	40%
US Consulate General Milan	37%	21%	42%
US Consulate General Naples	40%	21%	39%



List of Pass Through Charges

2003

Other Market Charges

- Listed in Attachment C
- Pass-through
- Apply to all kWh delivered (Renewable and Conventional)

Italian	English	Italian	English
Perdite di Rete	Energy Losses	Corrispettivo Energia Attiva	Active Energy Compensation
Dispacciamento	Dispatching	Componente A2	Component A2
Oneri Delibera 170/09 (TIS)	Charges for Resolution 170/09	Componente A3	Component A3
Componente PCV, “Prezzo Commercializzazione Vendita”	Component PCV “Price of Marketing and Sales”	Componente A4	Component A4
Reattiva	Reactive	Componente A5	Component A5
Corrispettivo Trasmissione	Transmission Compensation	Componente AS	Component AS
Corrispettivo Costi Fissi	Fixed Cost Compensation	Componente AE	Component AE
Corrispettivo Potenza Contrattualmente Impegnata	Compensation for Power Contractually Committed	Componente UC3	Component UC3
		Componente UC4	Component UC4
		Componente UC6	Component UC6
		Componente UC7	Component UC7
		Componente MCT	Component MCT
		Servizi di Misura (MIS)	Measurement Services